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THE DIAGNOSIS OF GALL BLADDER DISEASE.*

By Mack Rogers, M. D.
Birmingham, Ala.

The diagnosis of disease of the gall-bladder and gall ducts is so essential that I offer no apology for presenting this subject for consideration.

When a patient complains of trouble in the upper zone of the abdomen, we at once suspicion all the organs in that region and attempt to limit it to as small an area as possible, and as a rule, we soon locate it in the upper right quadrant.

The organs situated in this region are, the pyloric end of the stomach, the duodenum and the hepatic flexure of the colon, the liver, the gall-bladder, the gall ducts, the head of the pancreas, the right kidney and for practical purposes we will include the appendix.

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The pathological lesions most frequently met with are: first, gall-stones; second, appendicitis; third, ulcer of the duodenum and pyloric end of the stomach; fourth, renal calculus and renal tuberculosis; and fifth, pancreatitis.

Now, with these propositions definitely before us, we are enabled to methodically eliminate the pathological lesions of these other organs.

After gall-stones, appendicitis is the next most frequent lesion found in this group, and is the most treacherous one we have to deal with, but if we are cautious in taking the history there will be some point in it that is not common, on which we may exclude appendicitis.

The lesions next most common are ulcer of the duodenum and pyloric end of the stomach. An ulcer of the duodenum may so closely simulate gall-stones as to baffle the most astute. While ulcer of the pyloric end of the stomach oft-times is so indistinct as to mis-lead even the closest observer, but in this connection we should not lose sight of the fact that we often have pathological lesions of more than one organ affecting the same patient at the same time.

I have frequently seen such a condition demonstrated by operation. But if one can succeed in eliminating these two groups of lesions, we will have made very material progress toward a diagnosis.

Kidney-stone and tuberculosis of that organ are oft-times perplexing, but by careful work and the use of the improved instruments and methods, we are usually able to exclude them.

Pancreatitis is yet surrounded by mist and uncertainay, and so far, we have to wait about making a diagnosis of it till the organ is exposed by exploratory incision.

So this brings us to deal directly with gall-bladder disease, and as gall-stones constitute so large a part of it, we will hereafter use these terms synonymously.

In a typical acute attack of gall-stone colic we find the patient suffering from an excruciating pain, referred to the stomach or gall-bladder region. This pain comes on suddenly while the patient is in perfect health and passes off in the same way. It is paroxismal in type, and radiates to the epidgastric or umbelical regions, or it extends directly to the back, and radiates up beneath the shoulder blades. It

is stubborn in character and does not yield readily to moist heat or internal medication. It may continue for a few minutes only, or for hours, or even days, in spite of opiates.

Pressure over the gall-bladder during an attack of colic always elicits local tenderness and increases the intensity of the local as well as the referred pain. The pain is intense while the stone is traversing the cystic duct and suddenly becomes less severe when the concretion has either dropped back into the gall-bladder or entered the common duct. Should this pain continue and jaundice ensue the stone is evidently obstructing the common duct, but if the stone has entered the bowel the attack is ended and the jaundice soon clears up.

These attacks are known as hypatic or billious colic, or gall-stone colic. We should remember, however, that we may have severe billious colic without gall-stones and that we may have gall-stones in abundance without colic. We sometimes operate on cases for gall-stones and find none, but instead we find the gall-bladder filled with viscid tarry bile that is occluding the neck of the gall-bladder and cystic duct. But of course it is just as rational to operate for the relief of such a condition as it is for gall-stones.

Accompanying or following an acute attack of pain we have nausea, vomiting and profuse perspiration, due to the shock caused by pain. This pain is not always referred to the right side, it is sometimes complained of in the left side, and may never be felt to the right of the median line, and such cases are often mistaken for a left kidney-stone. The pain is sometimes entirely wanting, but we should not permit ourselves to be misled by the absence of so important a symptom, but should follow logically the other signs and symptoms of gall-stone disease. But if we are only cautious and careful in taking the clinical history of these cases we will develop a train of symptoms which in the majority of cases will enable us to make a practical diagnosis if not an exact one.

So in all suspicious cases we should insist on a clean, clear, consecutive clinical history, and from this we will learn of mild gastro-intestinal disturbances at first, such as gastralgia, cardialgia, indigestion, dyspepsia, constipation, diarrhoea and so on. And while I do not deny

the identity of these "algias," yet I am convinced the sooner we consider them as mere symptoms and look for their real cause the sooner we will relieve our patients permanently.

These are only symptoms of a pathological lesion in some of the organs referred to, and should be placed in the same category with obstructive jaundice and other symptoms.

The general practitioner can recall many of these chronic dyspeptic cases, and remember all too well how they have gradually lost in both flesh and strength and have by a slow process passed from a hale, hearty, robust, plethoric condition to that of a thin, emaciated, pale, aneamic invalid, not daring to take a meal of any kind for fear of provoking an attack of colic. These patients are rarely confined to bed, except during the attack, after which they are again in perfect health during the interval. Fever is rare, and when present never runs high, from 100 to 103 degrees F, and this only when we have empyaemia or gangerene of the gall-bladder, or a common duct obstruction or some other complication.

When these complications do occur and the peritoneum becomes involved we may have a condition simulating malaria, such as chills, fever, sweat, nausea, vomiting, etc. This is accounted for by the absence of lymphatics on or near the gall-bladder, and the more liberal distribution of them along the course of the bile ducts, and when these bile ducts are much involved we will have jaundice to a greater or less degree. This jaundice may deepen after each attack and entirely clear up in the intervals.

Jaundice is always a very strong pointer to disease of the bile ducts, and when it occurs in the history of a case we should not lose sight of it till satisfied of its significance. Jaundice may be due to a general infection of the gall-duct and gall-bladder, or to a stone impacted in the common duct, or to a stone in the cystic duct low down where it produces pressure on the other ducts.

If we palpate over the gall-bladder, we are able to feel the base of this distended viscus, jutting down below the margin of the liver at a point corresponding to the lower border of the ninth right costal cartilage, in other cases we can only make out a mass there, but not the dis-

tinct gall-bladder. This mass is due to adhesions that have formed during previous inflammatory attacks. The pulse rate is usually lowered to 50 or even 40 per minute. The X-ray has been of no service yet, and blood examinations are of no real value.

Age, sex and physical condition, as well as social position, play important parts. It is estimated that 25 per cent., of all persons reaching 40 years develop gall-stones in some form. They are most frequent between 40 and 60 years. Females are three times more often affected than males, and of these, ninety per cent. have been borne children. They are usually found in those of a robust build and habit, and are rarely found in thin, delicate, nervous people.

Gall-stones are found more frequently in the poorer class, or those who have seen the hard side of life. I wish to repeat and emphasize the importance of diligence and care in these suspicious cases, where the patient continues to have periodical attacks of indigestion, colic, nausea, vomiting, perspiration, followed occasionally by a slight tinge of jaundice, in order that we may be able to arrive at a practical diagnosis. This is not always easy, and is indeed oft-times impossible, and especially so in the first attack that lasts for a short time only and passes off without leaving any jaundice.

However, a reasonable diagnosis can be based on sudden intense pain, tenderness and rigidity, localized over the gall-bladder, accompanied by nausea, vomiting, perspiration, prostration and often jaundice, clay colored stools, containing gall-stones, together with a distended gall-bladder or a mass in that region.

These signs and symptoms grouped together in a large fleshy person, belonging to the poorer class, over forty years old and especially if a woman who has borne children, will abundantly justify a diagnosis of gall-stones. And when we feel confident gall-stones are present, we should not hesitate to recommend surgical intervention, especially since there are no known medical remedies that materially affect this condition. Intervention should be insisted upon when the paroxysms come in rapid succession and with increasing severity, producing loss of flesh and strength, accompanied by jaundice deepening after each attack. These are determining signs and symptoms that should not be

permitted to develop too prominently before we operate, because in this, as in other prostrating conditions, the operation should be done before exhaustion occurs. But, if we should attempt to follow too closely, the signs and symptoms as here enumerated, we would rarely be able to make a diagnosis, and much more rarely would we operate for gall-stones. Fully one half of the cases now operated on for gall-stones are picked from among the so-called stomach or indigestion cases, and while they do not present a typical gall-stone history, they are clearly surgical cases, and if we operate on such cases, we will find that most of them will show some reliable condition that can be remedied by such an operation. And this brings us to the statistics of operation for gall-stone, and by the courtesy of Dr. J. W. Long, of Greensboro, N. C., I will quote his statistics taken from the Mayo Clinic last year. They give 646 operations for simple stones in the gall-bladder without marked complications, with a mortality of less than one-half of one per cent., whilst they have had 177 operations for common duct stones, with a mortality of 11.9 per cent. These facts should forever settle the question as to the propriety of operating on these cases, and as these statistics show, it should be done while the stones are yet in the gall-bladder, before they have reached the common duct, and set up the vicious train of symptoms that so materially increase the danger of this operation.

I wish to acknowledge my indebtedness to Drs. Mayo & Mayo and their colleague, Dr. Christopher Graham, for their articles on this subject as well as the valuable observations I made while in their clinic the past summer.

SIGNIFICANCE OF THE "MORNING DROP."*

By A. F. Toole, M. D.,
Birmingham, Ala.
Prof. of Genito-Urinary Surgery Birmingham Medical College; Secretary Jefferson County Medical Society.

We might well be as weary of hearing this topic discussed as of seeing the drop under discussion; but I am inclined to think this weariness

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partly due to finding so large a number of treatises on the subject devoted to emphasizing some hitherto unsuspected cause, or to exploiting some instrument or method of extraordinary diagnostic precision. The trend of this brief article will be more toward tearing down certain beliefs offered of old than toward building up a new structure of causes; toward attacking the too-ready acceptance of scattering views, than toward offering something to be found in 90 per cent. of all cases, if one knows how to find it.

Yet I would not for a moment belittle the importance of giving this small trouble its due consideration, nor of taking into account and carefully studying each pathologic phenomenon. The sexual hypochondriac is notoriously prone to see in this one tiny drop an ocean of worry, while the busy practitioner may well be forgiven for shaking it into the chop-jar of trivial or fancied ailments. But our real sympathy should be extended to him who tries to gauge its true degree of significance; for he will gain so little satisfaction in searching for a concise exposition of causes and treatments in the usual works devoted to genito-urinary diseases. The reason for this becomes apparent if one takes such a volume and collects in classified form the scattering statements therein made. I have selected only four of our best-known American authors, and have thus boiled down and analyzed all their assertions and suppositions as to what might cause a slight chronic urethral discharge, or, the "morning drop."

There is thus secured the rather astonishing total of 45 separate and distinct causative factors, the presence of any one of which they assume to be sufficient for the appearance of this morbid moisture. Subclassified, 10 of the 45 are acknowledged sequelae of acute gonorrhoea; 9 are non-gonorrhoeal conditions of the genito-urinary tract; 12 might be called habit or environment, while 14 constitutional diseases are said to be frequently complicated by this annoying discharge. Certainly no other ailment, whatever its size, gravity, or frequency, can rejoice in such a varied etiology, and certainly the cause of accurate diagnosis suffers severely from having to drag around such a "hodge-podge" of possibilities. Should we arrive at a correct diagnosis of cause in a difficult case, it would certainly seem to be due to either a most lucky

chance, or to a remarkable expenditure of time and patience; whereas, there is a suspicion that lacking time and patience, some diagnosticians in the past have saddled the blame of a mysterious "morning drop" upon innocent conditions, and the charges have been handed down from book to book.

Should we employ to some extent, as we often do elsewhere, the method of exclusion, it would be almost appalling to feel that we must exclude 44 causes, let us say, before being sure of our diagnosis; indeed, could we even exclude all but one cause? for if there can be so many conditions,—local, general, and habitual,—of which our "morning drop" is a symptom, would we not often find more than one condition present? and if more than one, would not our diagnosis be only half-complete when we have unearthed one or even two "possibilities?" What more easy than to have a patient with that vague shadow, a "rheumatic diathesis,"—with an inordinate thirst for alcohol,—with a propensity for excessive sexual indulgence, and with a gonorrheal history of several chapters,—yet suffering from a "morning drop" kept up solely by some nostrum placarded over his favorite urinal?

Or suppose we employ the endoscope, and fail to find erosions or papillomata; suppose we employ the microscope, and fail to find sharp-pointed crystals of oxalates, or lingering groups of gonococci; suppose we examine per rectum and fail to find a tender prostate or doughy seminal vesicles;—what of that? May it not be due to some dietetic excess, to ungratified sexuality, to a "catarrhal idiosyncrasy?" Certainly, and by the same token, it may not; nor would the opposite course, however much easier, come any nearer the truth, when we pronounce each and every "morning drop" to be proof of an uncured gonorrhoea. But whether we pronounce it due to obstinate constipation when there is really chronic disease in the prostati follicles, or whether we call it a soft stricture of large calibre in the bulb when it comes in fact from the patient's misguided determination to strip the urethra until that drop does appear, the situation is almost equally bad on the patient.

If our diagnosis of cause or condition is rendered so complex, what must we expect to find when groping for advice as to treatment? Truly, confusion worse confounded is our reward. Gathered here and there

in the same way, we find 17 drugs which may be administered internally, in the discretion or despair of the physician; 18 which may be tried locally, and 12 procedures other than drugs which might prove beneficial. Neither hay fever nor uterine displacement can boast of such therapeutic attention; and it is no wonder that Genito-Urinary Surgery is sometimes reproached with its too-frequent failures to cure "such a simple little thing," (so said) as a "morning drop."

And now before trying to draw any conclusion, let me say,—partly in apology for interjecting a small subject among really serious topics, —that I am not trying to "make a mountain of a mole-hill;" we may have before us a symptom of some lesion which threatens the patient's health, or the health of outside and innocent parties; or we may be dealing with a mere simple and harmless condition, possibly self-corrective; but in the first case, our responsibility as guardians against unknown evils, and in the second case the patient's very importunity, if nothing else, would demand that we give his complaint care and attention.

My own conclusions are, that we have been too careless, or perhaps too dependent on the findings of others, both as to diagnosis and treatment; that there are just a few frequent causes of this trouble, and possibly others very infrequent; that no one method of diagnosis, instrumental or otherwise, is pre-eminently successful, and no one cause overwhelmingly met with; that our treatment will be more generally effective as our diagnosis is made more accurate, and that accuracy of diagnosis is to be attempted through any and every logical means, but over and above all, through diligence, patience, and care.

A FEW SUGGESTIONS ON PREVENTION OF FEVERS OF MALARIAL ORIGIN.

By C. E. Edgerton, M. D.
Coushatta, La.

Within the last few years it has been clearly proven by scientific investigation that the female of a certain species of mosquito, called the anopheles culex, is the cause, and only cause, of all kinds of malarial fever, and in all of its different forms, such as chills and fever, con-

gestive chills and fever, remittent fever, or bilious fever, swamp fever or black jaundice fever, etc., also malarial dysentery.

We formerly believed that malaria was contracted from bad drinking water, and the inhalation of bad air that rose from foul ponds, stagnant pools, etc., and was charged with the malarial poison, miasma, as we then called it. But this old theory, by means of the skillful use of the microscope and other methods of investigation, has been proven false, and we now know that through the bite of the female anopheles culex alone is malarial fever transmitted from one person to another. But in this way is equally as infectious as yellow fever.

Hence, get rid of mosquitoes, and there will be no more malarial fever, and with pure artesian water, or boiled water for drinking purposes, there will be no more, or at least very little typhoid fever. With our country rid of these two diseases it will be the garden spot of the world for health!

We can all have good drinking water, for everyone who owns a place can have an underground cistern, and those who do not own places can at least have a pot or kettle large enough to boil their drinking water. After using boiled water with ice in it we soon learn to like it. In the country where it is not convenient to have ice the water can be put in well corked jugs and let into the well to get cool, and there it will soon get as cold as before it was boiled.

But to get rid of the mosquito is an undertaking that requires more patience and more labor. In fact I admit that it would be an unfinished task to attempt to get rid of the mosquito entirely. But by starting early enough in the spring we can rid our residences of them, or at least reduce them to a minimum. It is a well known fact that mosquitoes go only a short distance from where they raise, except when blown by a strong gale, or when they follow cattle, etc.

Then, if mosquitoes are the only cause of malarial fever, and they do not go any great distance from where they breed, it behooves everyone to use measures to prevent their breeding on his premises, for I assure you that malaria killed a larger per cent of the citizens of Red River in 1905 than was killed by yellow fever during the last epidemic of that disease in New Orleans.

The following rules strictly carried out will be sufficient to prevent their breeding near enough to your dwellings to do harm:

1. Allow no standing water within 200 yards of dwelling. This can be done by ditching and filling in the low places where ditching is impossible.

2. Keep all tubs, washpots and other vessels emptied when not in use.

3. Go over your premises often and see that no bottles, cups, saucers, cans or any other article of this kind are turned up so as to catch and hold water, for only a few drops are sufficient to raise numbers of mosquitoes.

4. Troughs and other vessels used for watering stock and poultry should be emptied and washed out every three or four days.

5. Allow no high grass or vines to grow right near your dwelling. While these are not breeding places for mosquitoes, they are excellent harboring places for those that might straggle away from home, as did the prodigal son, and the dew on this vegetation might keep them alive.

6. Carefully examine all shade trees and stumps near dwelling, to see if any are hollow and hold water. If so, and the water cannot be let out, pour coal oil in the water at least once a week. All shade trees should be trimmed high so that the sun can shine on the ground.

7. Water closets should be frequently cleaned and oiled.

8. Either screen your well and cistern thoroughly so that no mosquitoes can pass, or put one teaspoonful of coal oil into each, once a week. This will not hurt the water for drinking purposes.

9. Do not have cow lot too near residence.

10. For fear that you may have a strong wind to blow a few mosquitoes to your house, provide every bed with a large mosquito bar, with meshes so fine that a mosquito cannot pass through, or else have your house thoroughly screened.

The anopheles mosquito is one that rarely bites except at night. Hence when our little ones are snugly tucked in a well woven bar they are safe.

I have said that malaria is not infectious except through the bite of

the anopheles mosquito, but in that way is just as infectious as yellow fever through the bite of the stegomyia.

Then do not visit or allow any member of your family to visit your neighbors who are having or have had malarial fever, except where it becomes necessary for humanity's sake. And even then do not sleep there unless under a good bar, but sit up and watch mosquitoes.

It is not only dangerous to be in the house with a person while he is sick with malaria, but dangerous to be about the house during the remainder of the summer and fall unless the house has been well fumigated.

Every person with malarial fever should be under a bar and the house fumigated immediately after his or her recovery.

If all of the above suggestions are carried out, and you get all of the malaria out of your system this winter, my honest opinion as a physician who has studied the subject from a clinical standpoint, is that you will have no more malaria in your family. That you will not stand by the bedside of your child and see it thrown into convulsions by a burning hot malarial fever. That you will not see your wife, your daughter, your son, father, mother, or brother, turning yellow, and finally suffering with an attack of swamp fever, while you, poor fellow, will be wondering which will win the battle of this terrible ordeal, life or death! There will be fewer little mounds in the family graveyard, and will save many heart pangs, many a tear, many hours of anxious watching!

Have you ever seen a little bright-eyed curly-haired girl, the only child of a fond father and mother, running and playing, laughing gleefully, and apparently in perfect health, and the next minute take a chill and almost the next minute have a spasm, and another and another, each one a little harder? The poor mother's anguish! At last, the angels come and take to heaven the beautiful little girl that seemed so well but a few hours ago.

You have seen this? Then I have said enough. I know that you will do all in your power to avert such a calamity to yourself and family.

When you all put these suggestions into practice your family physi-

cian can take a summer vacation as other men do. Let your password be, death to the mosquito!

PELVIC ABSCESSAND ITS TREATMENT.

By Neil MacPhater, M. D., C. M., F. R. C. S., L. R. P. C., Prof of Anatomy, New York Post-Graduate Medical School.

Although the abdominal route is usually the proper method of removing pus from the female pelvis, yet there are many instances where the vagina offers greater expediency and safety. Inflamatory conditions within the pelvis are appallingly frequent and few women are free from some of the evil results following in the wake of such conditions. Notwithstanding the fact that the menstrual period is the more frequent, there is no time in the life of a woman when she can be said to be free from such an invasion. Not only do young girls have severe inflammations of the vulva, vagina, uterus and pelvis, but elderly women occasionally suffer also. It is but reasonable that this should be so. Up to the period of puberty the uterus and its appendages are with manifest precision and subtle accuracy, gradually accommodating themselves for the important physiological functions they are shortly to assume. In the early years of life the pelvic organs peculiar to woman participate to no particular extent in the normal functions of the body. As the girl approaches the period of puberty, however, these organs begin to manifest peculiar and characteristic metamorphosis. The blood which zig-zagged its way through limpid and indifferent channels, comes to possess the influence of new instincts. The hitherto quiescent and functionless structures contemplate in subtle softness the singularly significant changes that are about to take place. The blood vessels are increased in volume and capacity and traverse the tissues with unfaltering activity; the lymphatics become laden with lymph that formerly knew not where to go and the nervous system has formulated its marvellously sensitive plans.—One cycle of a physiological act and the girl stands on the threshold of womanhood, filled with wonder.

During the process of these intricate and complicated changes, perversion of physiological conditions may entangle recognized normal function and inflammatory or other eccentric conditions result.

Anatomical Consideration.—A certain amount of anatomical knowledge is absolutely necessary in order to have a clear conception of the importance of our subject. It is not the purpose to enter fully into this subject here. The reader is referred to works on anatomy for that. There are, however, a few very important points that should be distinctly understood and will be considered below.

The Pelvic Peritonaeum.—The pelvic reflexions and attachments of this membrane are of peculiar practical interest. The casual dissections carried out in our colleges fail to convey the enormous importance of this structure. The peritonaeum descends down behind and in front of the great vessels, sacrum and bladder. It then turns upward into the posterior wall of the uterus and Fallopian tubes. From this point it rounds over the summit of these structures and then dips downward in front to the extent of about two-thirds of its posterior dip. It then passes over the fundus of the bladder before taking its final upward turn to the anterior abdominal wall. That part of the peritonaeum that passes up the side of the pelvis is not intimately attached to the subjacent structures, but has an interval of loose cellular tissue intervening. This can be demonstrated by any one who wishes to make a careful dissection of the parts. One inch below and a little to the inner side of the anterior superior spine of the ilium an incision can be made which will guide one below the peritonaeum if the direction of such an incision be toward the ilium. Frequently, haematoceles and inflammatory exudations taking place below the peritonaeum will burrow this membrane from its usual attachments and so cause it to be reflected far up as to be readily and safely removed from injury for even a higher incision. When speaking of the treatment of pelvic abscess, further on, it will be seen how important a knowledge of these anatomical facts become. About the centre of each broad ligament the two folds of the peritonaeum are practically lying close together, but in certain diseased conditions they are widely separated. Near the uterus, between these two folds, there is a small amount of cellular tissue that frequently becomes inflamed and may be the forerunner of important pathological conditions.

Pelvic Connective Tissue.—The areolar tissue of the pelvis differs in

no respect from areolar tissue in any part of the body. Its function is to connect adjacent tissues and frequently to support blood vessels and act the part of a cushion. In the pelvis it is found distributed as layers of different thicknesses between the various organs and underneath the peritonaeum. It fills up the irregular spaces and in places is quite plentiful. Behind the pubes it is thick and forms a pad of areolar tissue that stretches backward to the anterior surface of the bladder. There is also a large amount of this tissue at the lower part of the pelvis. It is entirely underneath the folds of the peritonaeum.

A knowledge of the distribution of this pelvic cellular tissue is frequently of great importance. It is singularly prone to become the seat of inflammatory processes and may lead on to the formation of abscesses that may burrow about in various directions.

Lymphatics.—The lymphatic system of the generative organs of the female possesses considerable importance. It is frequently by this route that inflammatory poisons are carried to remote regions. Those arising from the vulva distribute their contents into the inguinal glands Hence it is that ulcers of these parts are so often seen to cause enlargement and suppuration of one or more of these glands. The lymphatics arising in the upper part of the vagina carry their contents to the areolar tissue below the peritonaeum in either side of the pelvis and between the folds of the broad ligament. In the cervix the network is exceedingly numerous. These and the lymphatics of the uterus proper anastomose in the subserous tissue and then form three or four chains that accompany the uterine veins into the folds of the broad ligament. When enlarged these glands can frequently be detected as indurated nodules by bimanual examination.

The Uterus.—It is not my purpose to enter into an anatomical description of this important organ. The reader is referred to any good work on anatomy for this. There is, however, a very important point in connection with the uterus that requires careful consideration. It is a matter I have never seen mentioned by authors, nevertheless I am persuaded after a number of careful dissections and from operations on the living uterus that one of the most noteworthy points, so far as practical gynecology is concerned, has heretofore been neglected. The

walls of the uterus consist of three distinct layers. The two innermost of these are fairly thick and are composed of a mucous and a muscular layer. The outermost one should be considered a capsular covering. It is a fairly thin membrane and can readily be removed from the subjacent or muscular wall. This layer extends the whole way down and includes the cervix. When describing the operative procedures that may be found necessary to remove pus from the folds of the broad ligaments it will be seen how this important point can be utilized as a safe guide to the abscess cavity.

Vessels and Nerves.—The vascular supply of the female pelvis is very abundant. The Fallopian tube, the ovary, the upper portion of the broad ligament, and the upper part of the uterus are supplied by the ovarian artery from the aorta. This artery at its termination anastomoses with the terminal branch of the uterine.

The uterine artery which is given off from the internal iliac supplies the lower part of the body of the uterus, including part of the cervix. From its point of origin it passes inward and slightly downward between the folds of the broad ligament to a point corresponding to the level of the external os. At this point it takes a sharp curve up the side of the uterus to about its center, where it anastomoses with the ovarian artery. This artery is noted for its numerous spirals and is frequently called the curling artery of the uterus. It is a wise provision of Nature that the tortuosity in the course of this artery should exist. When the uterus becomes enlarged in pregnancy, these arteries can then accommodate themselves to the increased growth. Otherwise they would be so stretched that their lumen would become almost entirely diminished, if indeed the artery was not torn across.

The veins of the pelvis are wonderfully numerous and complex. They form plexuses that completely surround the uterus These communicate with the vaginal and vesical plexuses below. They then pass out between the folds of the broad ligament and near the ovary they form the *pampiniform plexus.* They finally terminate in the uterine and ovarian veins.

Nerve Supply.—There is no subject in connection with the generative organs of more importance nor one that deserves so much attention

than that of the nervous supply of the female pelvic organs. The subject is but little taught in our colleges, and when it is, it is very superficial and perfunctory. Not until a knowledge of the intricate coursings of these nerves and their wonderful communication with others is thoroughly understood can a physician intelligently understand the manifold symptoms that may follow as the result of inflammatory exudations or other pressure. When a woman has persistent pain in one or other iliac region, the physician with blind preconceived opinions almost universally pronounces it ovarian, whereas, if serious scientific thought were given to the matter it would readily be understood that the great probabilities are the disturbance is caused by other influences. Operative procedures would be liberated from much of the adverse criticism to which they have been submitted and many a healthy, normal ovary would yet be reposing in its quiet and peaceful rest.

It is a mistake to believe that the uterus or any other important organ of the body is independent of its neighbors. There is an intimate association between them, and when disaster befalls one the others to a certain degree are disturbed. In the case of the uterus this is particularly true. Although our knowledge of the nerve distribution in these organs is as yet fragmentary, the relation that one plexus bears to the others is fairly well established. It is to be remembered that the uterus and its appendages are originally formed from the Wolffian bodies and throughout life maintain a close affiliation with the other organs that are developed from the same mass. The hypogastric plexus supplies the uterus with nervous energy. It is situated between the two common iliac arteries in front of the sacrum. This plexus is intimately connected with the renal plexus by many filaments, and this latter organ with the solar plexus and on the right side with the great pneumogastric nerve. The hypogastric plexus bifurcates below and forms the pelvic plexus. This latter sends off other plexuses which supply the rectum, bladder, vagina, uterus, ovary and tubes. Not only do they form communications with the renal and solar plexus, but they also connect with the spinal nerves that are distributed to the hip and lower extremeties. Entangle the nerves that supply the uterus, or broad ligaments by inflammatory adhesions or other conditions, and far-

reaching symptoms may result. There can be little doubt that many of the so-called hysterical conditions are nothing more or less than unrecognized lesions in some part of this complicated piece of nervous mechanism.

Having briefly considered the most salient anatomical points that become involved as the result of inflammation or its sequelae, we will now proceed to enumerate some of its most frequent causes. It will be accepted by everyone that there are all grades in the severity of inflammations that may attack the generative organs. It may be acute or chronic, mild or severe. In what way so ever it begins there is no means of determining what the ultimate result may be. Some of the most unfortunate and disastrous complications begin in a very mild manner. Indeed the patient for a long time does not realize that there is anything seriously the matter. On the other hand, an inflammation may announce itself with sudden and severe symptoms and after passing through various stages leave no untoward complications behind.

Traumatic Causes.—Although operations upon the vagina or uterus are not now followed so frequently as formerly, by inflammation, yet they are much too numerous, notwithstanding our knowledge of the importance of cleanliness. This cannot be obviated in all instances on account of the septic condition prevailing at the time of such operation. Under such circumstances it is quite reasonable to suppose that operations of this character are followed by unfavorable results. However this may be, there remains a certain percentage of cases where the untoward after-results are attributable directly and indirectly to the operation itself. We have long maintained that the operation of curettage is a more difficult and dangerous procedure that that of ovariotomy. Frequently one hears of serious results following in the wake of what may well be considered simple curettements: this, too, with surgeons who exercise every precaution against uncleanliness. The writer attributes these results to the following causes: The first and most important cause is that of the incompleteness of the operation. The uterine cavity is probably but partly curetted and the whole of the septic debris lying in the walls of the womb are scattered about in new and fresh material suitable for them to start up an acute inflammatory

storm that rapidly ascends the tubes and involves in a serious way the pelvic viscera. Nearly as important a factor in the causation of inflammation following the operation of curettage, is one that we do not remember of having seen in any of the writings on the subject. That is the undue pulling down of the uterus into the field of inspection and operation. In many of these cases a previous inflammation has left the uterus and appendages more or less bound down by adhesions. There are many cases even of pus in the tubes with its consequent endometritis that are not diagnosed by an indfferent or careless examiner. The endometritis is all that is discovered and a curettage recommended for its cure. In such instances it can readily be understood how a severe pulling down of the uterus will tear peritoneal adhesions or rupture a pus tube. The passage of sounds, the application of nitrate of silver, or other caustics, and intra-uterine injections have been the starting point in inflammations that have ultimately developed into an abscess in the pelvis. The infection in these cases is generally more active and immediate than in that variety following as a consequence of gonorrhoea. The manner of invasion is dissimilar. There are physiological and anatomical explanations to substanitate these differences. From what has just now been stated in regard to the purposes and course of the lymphatics in the pelvis, it will be seen that in this sort of inflammation the centre of the storm will remain below the peritonaeum. Especially in those cases of infection following upon full time deliveries, and those of abortions and miscarriages, is the attack prone to be acute and serious in its consequences. There is ample reason for assuming to ourselves that this is so; both theoretical and practical deductions amply confirm these statements. The lymphatics and blood vessels in the pelvis are much more active and accommodating during the enlarged condition of the uterus than in the conditions when normal. The uterine sinuses and, in fact, the whole of the uterine surfaces should be considered as an open and raw wound. When, therefore, part of a placenta remains in the uterine cavity after delivery, then to become septic, or when the same condition takes place as the result of membrane or foetal debris, the chances of violent inflammatory results becomes at once apparent. In such instances the symp-

toms usually manifest themselves on the second or third day. The patient is not feeling well, there may or may not be a chill, the pulse is more frequent than normal and the temperature is pointing to 101 degrees or even higher. In those cases where there is rapid absorption the whole system may become involved with disastrous results. Generally, however, the destruction force is limited to the pelvis. There will be pain in one or both sides of the pelvis. When the peritoneum is involved the pain may be quite severe. The temperature may run up to 104 degrees or 105 degrees and the pulse is bounding and rapid. Should a vaginal examination be made, the uterus will be found swollen tender and hot. Sometimes the larger blood vessels can be distinctly felt throbbing against the finger. There will probably be an inflammatory mass that can be distinctly outlined and as the inflammatory process abates this mass may break down into pus. Frequently, however, absorption takes place and the patient recovers with ovaries and tubes bound down in a mass of adhesions.

Gonorrhoea.—The results following in the wake of this infection are frequently most serious. There can be but little doubt that it is responsible directly or indirectly for a great deal of the ill health and suffering of women. Too lightly have the profession and the public looked upon this disease. Even at the present time it is, generally speaking, looked upon as a trivial affection and one that can be readily cured. This we believe to be an erroneous opinion. It is more probable that the majority of cases are never entirely eradicatd. While there may be no occular manifestations that any remnants of the disease are lying dormant, yet experiences show that when men who have been apparently remedied of any such infection, indulge excessively in wine and women, a recurrence of the affection almost invariably supervenes. So long as one walks in the paths of physiological righteousness and moderation no evil consequences will follow. In the majority of these cases the story is full of melancholy sadness. A young man in his early, impulsive days,—those days when violent, impetuous ardor scintilates with furious recklessness to quivering desire, contracts the viscious disease, he consults his physician and in a short time all visible evidences of his complaint have disappeared. In a few years he marries an innocent

and virtuous girl. A short time after marriage the young wife begins to complain of vague and unfamiliar pains in the region of the pelvis. Menstruation now is not regular, there is a general lassitude and a lack of that buoyancy of former days. Matters do not improve and shortly she may be confined to her bed. In the great majority of such cases the disease comes on insidiously, although sometimes it is acute. In what way so ever it manifests itself, sooner or later the inflammatory process involves the uterine cavity and then spreads to the tubes. When such an affection reaches the extremity of the tube there is a great probability of agglutinating the fimbriae in such a way as to render the woman sterile. It is as the result of such an invasion of inflammation that pus develops in the tubes.

From these various causes I have hurriedly enumerated, suppuration frequently follows and abscesses result. For a long time past the problem of how most advantageously to evacuate pus from the pelvis, has occupied the attention of the profession. The general principle of evacuating pus, wherever found, applies with equal force to that found in the pelvis.

There are those who advocate abdominal section for the liberation of pus in whatever part of the abdominal cavity or pelvis it may chance to be located. We do not agree with these reasonings. Pus should be removed with the least degree of danger to the patient. In the ordinary run of cases of pyosalpinx, abdominal section should be the general rule. But in many chronic cases of such condition where the distention has been great and where the abscess fills up considerably one or the other iliac region, where adhesions are great, there is an easy method of liberating the contents of such an abscess by the vaginal route, in those instances where the abscess is developed in the areolar tissue beneath the peritoneum. These frequently become attached to the abdominal wall just above Poupart's ligament and can readily be liberated there. When an abscess becomes attached to the abdominal wall, symptoms indicating such a condition are frequently present. The abdominal wall itself at the point of attachment will become red, tender and oedamatous. There is not the least degree of danger in opening down upon an abscess when thus attached. The peritoneal cavity is entirely

shut off and the procedure becomes as simple as the opening of an abscess anywhere on the outside of the body.

We come now to a consideration of the methods in dealing with an abscess that has formed between the folds of the broad ligament. These may be adjacent to the uterus or they may be farther out toward the ilium. In many of these instances patients are reduced in health and strength and cannot well withstand the shock of a prolonged operation. Besides, there are distinct objections to abdominal section for this particular variety of abscess. The writer for several years past has adopted certain methods for the evacuation of these abscesses that have proven to be uniformly successful. When, for instance, an abscess has developed between the folds of the broad ligament and adjacent to the uterus, its contents can be liberated without danger and quickly. All the instruments that are required are a scalpel and tenaculum. The patient has been prepared over night for the operation by having had a bath and taken a purgative. An enema and douche are given before the operation. The anaesthetic is given and the patient is thoroughly cleaned and douched. In the simple operation that follows advantage is taken of the fact that the uterus possesses a capsule and this is used as a guide to the abscess. The operation is performed in the following manner: With the tenaculum the cervix is drawn down and to one side. An incision three-quarters of an inch long is made across the cervix near the fornix. The index-finger is insinuated into this cut and the capsule separated. The finger then burrows up the side of the uterus. In this way one can rapidly guide the finger to the wall of the abscess cavity. With but very little effort and, if necessary, a little scratching with the finger-nail, the finger enters into the pus cavity. The finger can now be withdrawn followed by the pus. All this can be accomplished in less than five minutes. The cavity can then he washed out and packed if necessary and is entirely under the control of the surgeon. When an abscess forms not close to the uterine wall, but rather adjacent to the ilium, there is a method of liberating its contents without the danger of opening the peritoneal cavity. It will be remembered that the peritoneum as it passes up over the fascia that covers the iliacus muscle, is not intimately attached thereto but

has a considerable amount of connective-tissue intervening. Taking advantage of this anatomical fact one can make an incision one inch below and a little to the inner side of the anterior superior spine of the ilium. The finger then burrows down and into the abscess. The abscess can then be washed out and drained.

CARELESS AND UNSCIENTIFIC MIDWIFERY WITH SPECIAL REFERENCES TO SOME FEATURES OF THE WORK OF MIDWIVES.

By W. C. Gewin,

Birmingham, Ala.

In the performance of the various duties that belong to our profession we are ofttimes brought in contact with conditions which arouse our sympathy as well as demand our scientific aid.

In my own professional career nothing has thus far so deeply impressed me as the observation made in the lying-in chamber, where the parturient woman has to undergo not alone the unavoidable and natural pains of childbirth, but too often, also the far more serious suffering brought upon her by the gross manipulations and hazardous practices of ignorant and officious midwifes.

These observations I regret to say, have lately happened with such frequency as to induce me (or I could more truly say provoke me), to present this paper to this society; and, if I should succeed in attracting your attention to the subject, I shall feel that my crude remarks upon a commonplace and uninviting topic are not altogether valueless. Such a hope, at least, together with a sincere desire to assist, however feebly it may be, in the satisfactory solution of a perplexing problem, constitute my only apology for appearing before you on this occasion. I know full well that there is no necessity for me to adduce arguments or relate experiences to you to show the incompetency of midwives as we meet them at the present day. Three fourths of them have abso-

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*Read before Tri-State Medical Society.

lutely no knowledge of the physiology of labor, or of the dangers to which a lying-in woman is exposed.

It is therefore a reasonable and natural deduction that almost every thing they do is in violation and defiance of the well known principles applicable to scientific midwifery. Since however, I am so unfortunate as to reside and practice in a community where they are especially numerous, and it is thought, especially unskillful, I have thought that a brief reference to recent cases illustrative of the more common and dangerous procedures might not be uninteresting.

Mrs. C., aged 25 years was confined in March last. She was a lady with excellent personal and family history, muscular and well developed, with ample pelvis and birth canal. One week after her confinement I was called to see her in spite of the protestations of her nurse; that she only had malaria and would soon be alright." Her peculiar appearance and the offensive odor emanating from her at once led me to suspect septicema; and upon examination my suspicions were confirmed. I found a mass of putrid placental debris in the uterine cavity and a deep laceration of the cervix. The usual treatment of cleaning out the uterus, applying hot carbolized vaginal douches, and administering supporting remedies was at once instituted; but, although her temperature fell somewhat, she soon succumbed to the septic intoxication. The husband informed me that she had been given a large amount of ergot in the beginning of labor, which to my mind satisfactorily explained the laceration of the cervix, and the difficulty in delivering the placenta, as well as the sad events which followed.

Another case of a different character was that of Mrs. B., a young woman whose general health was good, but who had a contracted pelvis. This was her second unsuccessful attempt at delivering a living child, and her sister had died shortly after an instrumental labor. These facts were well known to the midwife, who notwithstanding, had been in attendance forty-eight hours when I was called.

I found that the membranes had been ruptured and that the uterus was in a state of extremely rigid and tetanic contractions due to the influence of about two ounces of ergot, which had been administered to her, as was said, to expedite her labor. Efforts at version proved un-

availing, and not having the necessary instruments; I sent for Dr. W. I. Hayes, who lived near by, who, with my assistance, and a great deal of perseverance and physical strength, we finally succeeded in delivering by means of Cephalotrypsy. Fortunately, this woman's uterus was not ruptured, and by the assidious use of antiseptics; infection was prevented! But it was not through any want of carelessness or of vigorous efforts to force delivery through an impossible mechanical obstruction that she did not meet with the same fate as the lady to whom I have just referred.

I will cite another case, that of Mrs. L., a multiparous woman, who had previously had no trouble during the parturient period. She had been in labor only about two hours when I was sent for in great haste in the middle of the night. This time the midwife wanted me. Hurrying to her bedside I found an absolutely normal presentation; in fact, the child's head was resting on the perineum almost at the vulvar outlet, but all pains had ceased. Nothing could be easier. The forceps were applied, the head was simply lifted from its resting place, and delivery was completed without the slightest trouble. Here was a case of simple uterine inertia, with a non-resistant perineum in which an oxytocic was clearly indicated and would have given relief in a short time. None, however had been employed, and the greatest fears were entertained for the woman's safety.

In the practice of a certain other woman, whom I have in mind, I was for a time somewhat at a loss to understand the remarkable number of still births. As they occurred for the most in healthy multiparae, I concluded that the cause could be traced to her rather than to any abnormalities with which she had to deal. After I had learned the extent of her obstetric work and discovered the freedom with which she used her "forcing drops" the mystery was cleared up. At least, in several cases I am able to say that every other cause was carefully excluded, and I was led to believe that nothing else explained the fatalities. The mode of action of ergot in these cases being a mechanical compression of an incarcerated cord, an interference with utero placental circulation, or a peculiar toxic influence which it is known to have.

Many other cases might be cited, but these few I think will bear me out in saying that fingering midwives are almost always utterly ignorant of the conditions with which they have to deal, entirely unfamiliar with the indications for the use of drugs, inexcusably negligent in not calling for aid when they know it is required, and criminally culpable for their assumption of the functions of a physician in the most serious cases. The injury that is being done by these audacious and unskilled individuals, both in the sacrifice of human life and the production of chronic invalidism, is simply incalculable. Tarnier, the celebrated French obstetrician, has said: "In the country as in the town, in the most magnificent palace, as in the humblest cottage, the enemy of the lying-in woman is the microbe." This is a forcible statement of a scientific fact, and I would not amend it save that it is not the microbe perse that is at fault, but the hand which permits or causes its transportation to the vulnerable parts of woman's organism.

And the typical old gin fingering guzzling midwife, with her pockets full of forcing drops, her mouth full of snuff, her fingers full of dirt and her brains full of arrogance and superstition is at least the greatest palpable enemy of a physiological puerperium. There is, as I have intimated, something peculiary pathetic in the death of a woman under such circumstances as I have related, and while I would not raise my hand to hinder any human being in the proper pursuit of an honorable vocation, I think that some corrective influence should be brought to bear upon this stupendous wrong. In other countries, notably in England, Germany and Denmark, especial precautions are taken by police and sanitary authorities to supervise the work of midwives and hold them to strict accountability. Indeed, in many of our own large cities the question has been agitated with more or less effect. Is it not time that we also should take some decided steps in this direction. I shall now speak of the attitude and habit of the general practitioner in his obstetric work. The wonderful achievements of recent years point unmistakably toward the path along which a practically unanimous profession will eventually tread. Indeed all specialists in this line and all the large maternities are at present pursuing substantially the same course in obstetric management. But among private practitioners there is still shown an adherence to antique methods which is

greatly to be deplored. Why this should be it is somewhat difficult to explain.

Bacteriology, that prolific realm in the microscopic world, is, as we must admit, often based on uncertain theories, and is still chiefly an experimental branch of pathological research, but, new though it is, it has already led to the most brilliant practical results, and has influenced to a greater degree our knowledge and our treatment of disease than any other department of medical science and among its accomplishments, nothing, it seems to me should be more cheering and gratifying to us than the light which it has thrown upon the subject of puerperal infection. I think we may safely say that the introduction and scientific application of asepsis and antisepsis to surgical and obstetric practice marks the greatest advance in medical science which the present century has seen. It is now almost universally admitted that the so-called accidents and complications of the puerperal state are due to an infection; that the infecting agent is a micro organism which gains entrance to the blood through some part of the genital tract; and that unless such organism be introduced these affections will not take place. And yet there are practitioners who hoot the idea of the aseptic or antiseptic management of labor. I would not be considered an enthusiast on this subject, but if err I must, I would rather err upon the side of unwarrantable enthusiasm than upon that of unjust and unreasoning apathy.

I would not be carried away by the alluring suggestions and golden promises that are being held out by microscopists throughout the world; for "oft expectations fails, and most oft there where most it promises," on the other hand, I would not be so blinded by custom and prejudice as to fail to recognize and profit by the enduring and substantial facts which have been laid before us. Many honorable and able physicians do not follow aseptic and antiseptic principles because they consider them superfluous. They have had, they say, hundreds of cases of confinement without losing a single patient. This at first sight seems a strong and convincing argument, but while they may not have had a death from what they choose to call puerperal metritis, per-

itonitis, or even acute puerperal septicaemia, if they would go a little beyond the usual period of the lying in and search for their cases of pneumonia, pericarditis, endocarditis, arthritis, abscess, and typhoid fever they would find many of them traceable to puerperal infection. Besides this, mortality alone is not the only factor to be taken into consideration. Innumerable cases of permanent ovarian, tubal, and uterine disease date their origin from the parturient chamber. Another argument used by the opponents of scientific midwifery is that labor is a natural process and requires as a rule no scrutiny or precautions on the part of the accoucheur. This is equally untenable, for no matter how naturally or with what comparative ease a woman may pass through her confinement she is in all cases a wounded woman, presenting to us not only the extremely sensitive and receptive uterine wound, but numerous tears, contusions, and abrasions of the genital tract; which while they may not be perceptible to us, are yet sufficiently large to admit myriads of pathogenic microbes. There is always a certain amount of traumatism connected with the parturient act, and no woman can with scientific accuracy be said to be free from danger because her labor has been normal. Then again it has been said that aseptic midwifery involves an expenditure of money and a waste of time, and is for that reason inapplicable in many cases. The truth is that with a proper appreciation of the object to be attained, it may be so simplified as to be practicable in any household. Fortunately, public sentiment is being enlightened on this subject and is beginning to demand the advantages of scientific work in midwifery. And, as we are in a certain sense the guardians of those who have committed their physical welfare to our professional keeping, we should feel that they have a right to demand the best treatment which knowledge and experience have placed at our disposal and that ours is the duty to give it to them. Real progress in science cannot be measured, as we know, by laboratory researches; but by the degree of service which such researches render the physician in the advancement of the healing art. I began my paper in an apologetic strain and I shall close it in like manner. I am conscious of the fact that I have offered nothing new and that to most of you my remarks seem like a thrice told tale. It

may be, however, that there are some general practitioners among us who like myself, have not hitherto sufficiently appreciated the importance of the work that is going on around us. To such especially would I direct my humble effort with the hope that in our future labors in this important field we shall look with greater favor and consideration upon the magnificent results which have been obtained by the faithful observance of aseptic and antiseptic methods. I do not know to what extent this society has in former years considered or discussed the subject of midwives, but I am convinced that there is urgent need for some definite co-operation on the part of the profession designed to restrict, if not to eradicate, the great evils which flow from the unbounded and unguided freedom with which careless and ignorant women are accustomed to pursue their self-appointed work.

THE RELATION OF THE MAJOR GYNECOLOGICAL POST-OPERATIVE CURES TO THE COUNTRY DOCTOR.

Hugh Hamilton, M. D.,

Harrisburg, Pa.

Every doctor has his practice, and, as a matter of course, it must keep step with each generation in its progress coming from its own age. We now live at a time of easy means of communication, physical and acoustic, as well as mental. The clash of mechanism strikes one's ear everywhere, and carries us boldly over long distances with increasing rapidity; the ring of the telephone calls night and day, and the stimulation of intelligence is intensified, by the professional periodical and book page: verily, medicine has advanced, to such lengths, our preceptors would stare in blank amazement upon our sanitary police regulations.

The object of medicine as a whole seems to be—*preventive*—and in the division of medicine known as *gynecology* there is found a fertile field for a surgeon with a hospital at his back, who would, if he could, leave little for a faithful family doctor; but midwifery and measles. Then what must our chief end become? To do all we can to compete with that surgeon. How? Why? "Hoist him with his own weapon."

Have an aim; make it good. We are first. Let us be early. Therefore, the purpose of this paper is *"Minor Gynecological Aims."*

1. The normal position of the uterus.
2. To timely treat Dysmenorrhœas,
3. And to answer the question, what is best to be done about the "Major Gynecology *post*-operative cures?"

The normal position of the uterus is anteversion, rising and falling as the bladder fills or empties. The rectum containing a more unyielding mass in constipation does a deal of damage by causing displacements, and hence, pressing upon the sacral nerve filaments and they upon the correlated nervous system originate the symptomology of these complaints that are so confusing.

(Let me point out to you the *Pelvis.* Then its areas and axses, and how they are protected.)

DEMONSTRATION.

Their disabilities are of a variety that classify themselves into two great divisions, one of versions, the second of flexions, and then again into the relations or degrees from the normal ante-mobile positions mentioned at first. It must not be forgotten that *fixedness* is essential to a disability.

The position of the patient and the environment of the uterus by the full or empty bladder or rectum, or both, obviously require more or less elimination and, therefore, *time* to make a correct conclusion as to the exact sort of disability which does exist.

The primary function of the uterus (conception) is only very indirectly affected by its position in version, but more so by the flexions, because semen is able to travel through the os, cavity of the uterus, clear through the tubes; even to the ovaries, and is not infrequently disagreeably demonstrated to both patient and physician in the extra-uterine pregnancy resulting.

If the mechanical position of the uterus is known and its mal-positions discovered soon, what of our ability to restore the uterus to as nearly its normal relations as possible, and how possible it depends

very much upon the personal equation in the uterus itself, the patient, and last, but by no means least, the individual experience and judgment of the physician. We, naturally, turn after discovering a mechanical displacement to mechanical means to rectify such asymmetry, to remove causes, to tampon with indicated medicants, to support by temporary or permanent properly selected pessaries, and by natural means, namely, abdominal fastening or shortening the cord.

The first three of these factors are easily within the province of a general physician, having a clear eye to see, a judicious mind to discern and a dexterous hand to perform; the fourth remedy depends upon propitious surroundings, demanding oftentimes more than can be complied with by an ordinary practitioner, limited as he is by circumstances of sanitation, personal wealth and service, not to speak of his time or of his compensation.

The usual positions of patients in examination has much to do with success in arriving at accurate results. That patients put under ether do not run as much risk in a hospital, as at home, is obvious. More than one of us have known the misbehaviour of an anesthetic, while the objection of patients to be rendered temporarily helpless must be legally recognized. Understand, I am speaking of private (non-hospital) situations, where the responsibility rests alone upon you. Then, if you should ever get into a legal controversy with your then good, but now bad, patient, you will have an experience and also gain a knowledge of professional etiquette that will render that experience a valuable asset forever.

The etiological factor in dysmenorrhœas are more or less mechanical, with a strong leaning toward the mechanical side; it is a problem coincident with modern life, somewhat similar to dystocia.

A classification of patients by environment suffering from *menstrua dolorosa* is presented relatively as to degree in the *virtuous, un-married* and *married.* One of the principal reasons for most of it in the virtuous is the ungratified sexual necessities or appetite our civilized, artificial and luxurious customs generate and is a profoundly fundamental cause. It is a pity to attack theological theories on this subject, but we must look upon physical subjects in a purely physical yet social re-

lation. Everyone who has had the opportunity to have seen in his experience the decidua after menstruation, to grow that membrane, to throw it off, demanded a physiological process of some intricacy. It is true that menstruation is a sign of readiness on the part of the female sexual organs for the performance of their essential duty toward the propagation of the human race; what happens if that uterus does not become fecundated? Repeated monthly congestions. In such a case, were it a Rhinological question, what would one do? The patient would not suffer it to go on a day without asking and following advice, nor would a physician be long in expressing himself respecting immediate attention to the subject. Alas, because it is a matter of false modesty, a sexual affair, she is ashamed to complain of her troubles to her doctor until they are repeated for, not months, but years.

> "What secrets lurk within that Doctor's breast,
> Of mother-love, of throbs of pains and ills,
> All safely kept beneath that buttoned vest,
> Receptacle of powders and of pills."

Then all sorts of concommitant influences have worked havoc with the simple problem and rendered it compound and difficult to get at the real truth, because without the true facts, one is without the means of solving the question. The usual classification of Dysmenorrhœea is given in this order: Mechanical, Congestive and Neurological. Their natural relative sequence is, however, Congestive, Neurological and then Mechanical. Because the *source* is *social.* The results of it are repeated congestions. The *consequences* are *nervous conditions.* The *ultimate effect mechanical.* When do we get to know about all this? Not until the gamut has been quite completed. In a survey of this state of things we find still more in the constipation, hemorrhoids, irritable bladder, due to irritable urethral mucous surfaces. The tangible facts might readily be extended.

In the un-married, but not too virtuous class, other more likely causes of Dysmenorrhœa are not due to pregnancy, but of too much of what the virtuous class lacked. This latter kind also miss other interesting pathological phenomena beside those of Gonorrhœal and specific origin.

The un-married are more frequently on the medical than the surgical side of treatment for their peculiar ailments; but they, too, grow obstructive and combine a mixture of treatment from vulvitis to ovaritis through the change of specific character on up to the major gynecological operations of salpinx, etc., which form a profitable and wonderful field for the Gynecological clinic of the day. So as the means of rapid transit increase, the work of the gynecologist will not cease. Because, again, drummers use these ways of going about, they are well fed and when not working with their tongues must do something. It is here that they assist the doctor amazingly, both abroad and at home; for the complement of the proposition afford a study within limitations of the acquirement of this painful distress in the married class, through the un-married accommodating females. Married women have less congestive dysmenorrhœa, *per se,* it is mostly due to the restriction of offspring in order to enjoy the luxuries of "our gilded age." The cases of Dysmenorrhœas in the married are caused often by sub-involution, flexions, etc. They are not hard to cure when remedy is sought early before the adhesions become firm.

A word here on sub-involutions. The woman of means has time to secure proper involution if she has a discreet and insistent physician, but the gossip of the neighbors and the maxim of "Ten days lying-in is enough," cannot always be successfully resisted. An etiological factor of no small dimensions accounting for sub-involutions, flexions and other purely uterine affections, complained about the menopause.

Another common cause for functional uterine troubles is the necessities of the trade and farmer population in a community; their wives perform their duties with a fidelity beyond compare to their households and husbands; from their efforts produce many sub-involutions, versions, flexions with prolapses of proportions involving extensive tracts, until the ruptured perineums and displaced uteri rebel and come forth in a mute complaint from its "mullet mouth" of its treatment by the possessor. You all realize what I have said is true, if only like Balim's Ass it could speak, would say, "put me back in my place." To do so is now impossible without a major or hospital operation.

What can we do for these people who are so classified for us? En-

deavor by all means to urge what surgeons are doing the world over, early attention. They, the surgeons, suggest operation, insist on it, hammer at it in season and out of season; the result is, operation! ! Operation! ! ! And what do we do? Carry our patients to them for the operation and their fee.

Let us keep these hospital or Major Gynecological operative cases in our own hands by early attention to them, and, not by prolonged neglect, breed them. Catch on at every time to suggest proper early physical examination to the more easily corrected and stop by thoughtfulness and action the often subsequent indispensable giant operative procedure. Why do the cases we take to the cities always land in a hospital? Are always operable, and sometimes do not always die, but nearly do, or are disabled for *life?*

Medicine has grown in cities, composite, too great to be practiced under present civic requirements, by one person alone; he must lean on his fellow. On the other hand, the rural and suburban districts offer a chance for that grand function of the influential family practitioner to guard the sexual as well as the sanitary well-being of the family practice. How? By undauntedly asserting the prime necessity of complaining very early of sexual disorders and making every effort to correct them, cogitating on them in his lonely drives instead of trading horses with the village butcher.

One is asked from such a paper as this for detail that would exhaust anyone's patience; it can be said in conversation subsequently. The principles of medicine are few, the applications like the stars unnumbered, for one has pain, congestion, inflammation, pathological, physiology, adhesions, hypertrophies, misplacements, atrophies and what not all come up one after the other in respect to the age of the disease.

My theme is to get at them early, "before the break of day," before everybody knows that "Professor ———— has performed a wonderful operation on Mary ———— in a distant City Hospital." The impression I wish to make is, watch and insist on early information respecting gynecological conditions arising from sexual and reproductive life. The surgeon of to-day watches for appendicitis, gall-stones and falling

kidney, prays for them, talks in his sleep about them, and, when he gets them, never sleeps until all the world knows he has got his heart's desire, an operation and a fee. " *Come early"* is his *"slogan."* It shall be ours, and then we will alleviate before he mutilates. Then our happy patients will *die* only of *senility,* and praising us *country doctors* to the eternal gates of Paradise.

There is still one more *subject* I approach with dread; those surgeons whose *Major Gynecological operations* leave their patient on the hospital books *cured,*—discharged to their homes to be met by their family and their family-doctor, who, dazed by the wonderful survival of the ordeal through which his patient passed because he is courteously invited *"to be present at the operation"* with its splendid appointments and the reputation of the institution for *charity* and the reputation of the professor for *fees.*

What is left for the family doctor to do, but smile—Ah! Do operations effect a cure? Yes, if done early. There is an old adage—"an ounce of prevention is worth a pound of cure." That is sixteen times as much. What a percentage? Gentlemen, we must *be early* and prevent the trouble from the Major Gynecological post-operation cures. What is our trouble? Years, often, of morphia habitues, of pain, of nervousness unexplainable by us, but, to us damnable, and certainly hypochondrical, if not hypercritical remarks and not infrequently, summary dismissal—all this does not affect the operator. It is not wise to go into particulars, because we all know distinctions are often invidious and lead one unconsciously to make comparisons that are always odious. Each and every one of us have had our trials with the after-cure of the Major Gynecological operations cures.

Do not let us forget that surgery stands upon a tripod—the tripod of Anesthesia, Anatomy and Manual dexterity; medicine has furnished the two legs of that tripod to the "Barber-chiurgien."

The drug anesthetic and anatomical position of the parts. See his pole, red, blue and white,—the red, arterial; the blue, venous blood and the plain white represents his ever present towel. Every now and then a barber bleeds us, but the barber-surgeon is not done bleeding us yet. Let us assert our right, take hold of the two legs of the tripod, upset

the necessity of these operations and their consequent damage to our reputation often imputed to ignorance. That is, let us be alert; comprehend physiological pathology, physical pathology, therapuesis and artful mechanical manæuvres performed early, before chronic adhesions take place; seek after every primary symptom of sexual disturbance. Urge by early suggestion treatment in spite of prejudice and repugnance; do so in an artlessly artful way, while matters are still in the domain of minor gynecology and in our own control. By these means place the general practice of medicine upon a pedestal commanding respect from ourselves and the patient. You all remember the splendidly described professional ability of Dr. MacClure, a country doctor in the "Bonny Briar Bush," by Ian MacLaren. If you have not read it, do so.

The proverb of prevention is striving to pay 1,600 per cent. in sanitation; in other words, medicine with the strong arm of the State. Who gave it to us? That quiet, observing laboratory man. He found the bacillus, and when a patient comes early, he can have his tuberculosis frustrated—cured. His usefulness to the community continued.

Do Major Gynecological operations establish our women in the same manner,—able to do? No, they usually do not. They are prostrated, and commonly unable for sexual and household duties.

For

> "When slow disease with all her host of pains,
> Chills the warm tide that flows along her veins,
> When health affrighted, spreads her rosy wing,
> And flies to leave her but a Thing."

Our aims are high. Have we "hitched our chariot to a star" without thinking of the wheels of the chariot? For, "by mistakes we learn." What have we learned? Our patients, if taught "to talk early" of their sexual matters, we may keep them from being valetudinarians, chronic invalids. One will gain practice and that means a point toward perfection, for perfection comes throug the gate of practice, so one can collect that precious toll from experience. Confident in being able to relieve patients, if taken in time, by minor gynecological measures, and

their salvation from Major Gynecological operations. Thus: instead of appealing and relying upon those prophets at the meeting of the waters of "Urbanna and Pharphar" in the place of your own good common sense, at the humble home-stream of everyone's "Jordan."

Even if the patient may pass over to the other shore, she sees and thinks more of you, "Her Doctor," than if she passed to her eternal home through the corridor of an anesthetic room, or from the hospital cot surrounded by a screen, so as not to be seen.

THE NEWER SURGERY OF THE INTESTINES AND LIVER.

By A. R. Williamson, M. D.

In injuries to the liver many good authorities now advise immediate laparotomy if symptoms of haemorrhage into the peritoneal cavity develops; the sooner operation is performed the greater being the chances of recovery. If the blood apparently come from the liver, or a rupture of this viscus is discovered, the bleeding should be temporarily arrested by sponge pressure, or by pressure on the hepatic artery and portal vein, which can be done either by passing the hand underneath the inferior margin of the right lobe, placing the forefinger in the foramen of Winslow, the thumb in front of the lesser omentum, and applying pressure. Waring uses a compressor for the hepatic vessels; he applies it in this way: the blades are separated; the distal blade being placed in the foramen of Winslow, the proximal is put in front of the gastro hepatic omentum, and then the two are approximated until the circulation in the vessel is completely stopped. Waring has used this instrument on dogs and has found it does well, for it does not take up as much space as the hand and is more efficient. Now remove all blood clots, while any blood vessels which are visible on the surface of the wound should be picked up with forceps and ligatured with silk; then the pressure on the vessels may be relaxed to make sure that no large branch of the artery or vein has escaped observation; the margins of the rupture being brought into opposition and fixed by the insertion of a series of sutures; a fully curved Hagedorn's needle with a blunt point should be used; medium sized silk is the best suture material, as catgut is liable to slip; but be careful not to use too sharp a needle, for it may pierce the hepatic vessels. Insert the sutures about a third of an inch

from the margin of the rupture, passing down through the liver tissue to the bottom of the wound and then through the liver tissue on the opposite side until it emerges at a point one-third of an inch beyond the other margin; these sutures should be inserted about a quarter of an inch apart and all should be inserted before any are tied; considerable care is required in tying the sutures, for they may cut through. For any slight haemorrhage from the margins of the rupture or the suture apertures in the liver, a strip of aseptic gauze should be carefully packed over the bleeding part and one end brought out of the abdominal wound. Should it be impossible to bring the margins of the rupture together the vessels must be ligatured and the opening packed with aseptic gauze.

Ptosis of the liver is now attracting much attention; in this condition there is a sinking down or dropping of the liver in the abdominal cavity for which "ptosis" is a better term than such others as "wandering," "movable," "floating," although "displacement," "dislocation," "prolapse," are allowable. As Spencer has shown, with or without displacement of the main mass of the liver there is a tongue-like projection downward of the right lobe, in front of the kidney toward the iliac fossa. This has been called the "floating," "appendicular," "linguiform," or "Reidel's" lobe. Hepatic ptosis was first noted by Cantani in 1865, but the chief knowledge of this and other visceral ptoses is due of course to Glenard. It is necessary to study the anatomy of this region to understand the condition; the liver is chiefly held in position by the vena cava and by intra abdominal tension, the ligaments appearing scarcely strong enough to support entirely so large an organ. The vena cava being the fixed point on which the organ rotates, it is the anterior edge which comes to point downward, while the upper or convex surface looks forward, and as the right lobe is heavier than the left, the former sinks, while the latter, on the left side of the vena cava, remains in position; not only is the right lobe tilted downward and forward, but its edge is also thinned out and prolonged at the expense of the rest of the lobe, undergoing a partial constriction by fibrous thickening of the visceral peritoneum in a tranverse line so as to appear pedunculated. This condition is seen generally in women; out of the eighty cases collected by Glenard only seven were men, and it

appears to be due to a general relaxation of the abdominal tissues. Treves does not consider that tight lacing of corsets a cause, as this constriction falls below the mass of the liver, and the furrows met with on the convex surface of the gland he holds, with Turner, to be congenital. In twenty-six out of Glenard's eighty cases there were evidences of liver disease, such as gall-stones, cirrhosis and hypertrophy, in one case cancer, in another hyatid cyst. Of the seven males, one had cirrhosis, a second hypertrophy from malaria, and a third enlargement with ascites from heart disease. In fifty of the cases the liver seems to have been sound, but some of the patients had suffered from attacks of jaundice or colic. Glenard examines such cases by grasping the patient's loins with the left hand, while the right hand pushes up the intestines, thus the edge of the liver with the "floating lobe" is detected by the left thumb; a distended gall bladder and a floating kidney may co-exist, and the differential diagnosis is difficult to complete without an exploratory incision. The symptoms caused by hepatic ptosis are: dragging sensations, indigestion, or attacks of colic, jaundice from kinking of the bile duct; also others of a neurasthenic nature. The treatment generally advisable is a well-fitting belt, combined with the relief of dyspepsia, constipation and other nervous symptoms.

An incision in the right linea semilunaris is made and the liver fixed in position by about ten sutures passed deeply through its substance so as to unite it to the abdominal wall; at the same time gall-stones are removed. After operation, the patient should lie in bed for a month or six weeks, while more severe operations, such as the removal of the floating lobe, are not advised by Treves.

In hepatic suppuration, pain in the hepatic region after sudden movement or muscular effort brought on by succusion is the chief and significant sign; the accompanying fever is of no special type and may be absent. Malbot did not observe peritoneal friction, jaundice, pulsations of the liver, or hypertrophy, but deformity of the organ as the abscess bulges. Any depressing factor to the human economy is liable to produce hepatic suppuration; the diagnosis is completed by puncture then a free incision should be made, and the liver pressed into the wound by the assistant compressing the patient's sides, for there are rarely adhesions. The cavity should be washed out, and several large

drain tubes inserted. Manson's method is a much less severe operation and therefore more suitable for exhausted patients, consisting in finding the abscess by an aspirator, then passing in a trocar and cannula, withdrawing the trocar, passing a tube into the cavity through the cannula, withdrawing the cannula, and connecting a length of tube to the drain so as to obtain a siphon action. In cases where the abscess is near the surface and the patient in fair condition, a simple free incision, wiping out of pus sloughs and inserton of tubes or gauze is sufficient to produce a cure.

In gummatous hepatic tumors iodide of potassium is excellent. Robinson has described a case where a large gummatous mass had obstructed the common bile duct, while in another case a gummatous mass united the kidney to the liver; for seven years this patient had haematuria intermittently, so that seven years ago he was advised to have his bladder explored for a suspected villous tumor, but he refused and subsequently he had signs of chronic intestinal obstruction and wasting. Although there was absolutely no history of syphilis, after scraping out much of the gummatous sloughs, the administration of iodide of pottassium led to the patient's temporary improvement.

Gall-stones in young children occur occasionally. We must remember this in cases of colic with screaming fits and drawing up the legs, as, of course, also of jaundice. Gall-stones are found in children dying of wasting diseases where probably inspissation of the bile and feeble muscular movements of the diaphragm dispose toward their formation. In some cases a gall-stone has formed behind a stricture of the common duct, of congenital or other origin. The possibility of a successful surgical operation exists in these cases, and therefore a timely diagnosis is vital. A marked case of sixteen years' standing was relieved by Treves, who did cholecystenterostomy on a girl of nineteen. Her history showed that for sixteen years she had been deeply jaundiced, had stools without bile, and the urine deeply bile stained. Her face was swollen, expressionless, resembling myxoedema, and her intelligence very imperfect. She was subject to severe febrile attacks with vomiting, dyspepsia and constipation. At the operation the common duct was found to end in a nodule, with marked distension of the biliary system behind. The symptoms gradually disappeared following the operation.

Selected Articles.

SUCCESSFUL TREATMENT OF EMPYEMA.

By J. E. Marshall, M. D.

Gruenbaum has been successful recently in the treatment of chronic empyema by using the application of a negative pressure to the pleural cavity for several hours daily; the development of a negative pressure of 10 to 15 mm. Hg can be maintained by inexpensive apparatus, but in selecting the pump, remember that as there may be a slight leak at the chest wall, it is wise to choose a pump which will remove considerable quantities of air, and not one which is intended to produce a perfect vacuum. For this purpose, Fischer's filter pump is almost ideal, for the regulation of the negative pressure developed is easily carried out by altering the length of the tube used; this pump requires less than half a gallon an hour and gives but little trouble. Do not connect the pump direct with the empyema, for if anything should go with the pump, water would pass into the cavity; and if there is much discharge, the pump becomes dirty and does not act. A large bottle is placed between the pump and the chest, and this is partially filled with carbolic lotion; by placing the bottle on a higher level than the pump, even when the water is flowing extremely slow, respiratory movements do not lead to sufficient alteration in pressure to draw the water into it. A negative pressure of 80 mm. XG Hg. is used in adult cases, and this is accomplished by having a fall of about 2 meters. Gruenbaum advised one that would work without any attention at all; for this purpose a small exhaust pump of about 16 c. cm. capacity was run by a small electric motor; it is necessary to place a valve in the system to prevent too great a negative pressure. The arrangement which was adopted consisted in connecting the pump with a large wide mouthed bottle, through the cork of which three tubes passed; one was connected with the pump, one with the chest, and the third was open above,

but inside the bottle passed into a cylinder containing mercury. The depth of the mercury was over 15 cm.; the tube could be drawn up so that the distance of the end from the surface of the mercury could be adjusted with ease. The cylinder should be at least 2 centimeters in diameter, because aid bubbling through mercury agitates it so greatly that if a small cylinder be used the mercury would be thrown out; and gauze should be tided over the top of the cylinder. The negative pressure depends on the depth of the opening of the tube below the surface of the mercury and efficiently prevents a dangerous exhaust. The treatment is painless; usually the pulse rate is slightly accelerated, but that may be due to the excitement of having the apparatus by the bedside, and the advantages which may be claimed for this treatment are: The negative pressure tends to expand the lung without necessarily causing empyema of the other lung, which may be expected from the use of James' bottles, and secondly, the negative pressure produces a hyperemia of the tissues of the pleural cavity, increasing their local resistance.

West in a Bradshaw Lecture, published in 1887, claims that the fact that the pleural cavity may be laid open and yet that collapse of the lung with consequent pneumothorax may not occur must be accepted, and the explanation sought. "When the lung does not contract after pleura is open, it must be due to the cohesion between the two serous surfaces." He experimented with disks of wood, upon which were stretched stomach and other membranes, cohesions of which when wet and applied one to the other demonstrated that the lung will not let go its hold upon the pleura.

Thompson experimented upon a dog in the Loomis Laboratory, a medium-sized dog being selected and etherized; a very small opening made into the pleura cavity with a knife. The lung was seen at once to collapse, and the collapse was in proportion to the size of the opening. When a small opening was made, the pleura pulmonaris receded from the pleura costalis but a little distance; violent coughing of the dog would again expand the lung, when the opening in the chest wall was small, but when the opening was made still larger and a small portion of a rib resected, the lung receded from the chest wall about two

inches. The collapse of the lung took place equally over its entire external surface. When the opening was made larger than the trachea, the lung completely collapsed. A piece of glass was applied over the opening, and upon inspiration the lung was seen to fill with air. The glass being removed upon expiration, the air escaped through the opening from the trocacic cavity. As the effort of inspiration began, the glass was again applied and the lung rapidly filled with air, completely expanding after two or three inspiratory efforts; it was a question not of the cohesion of the pleura surfaces, but simply a mechanical question of pneumatic pressure. When a vacuum was produced beneath the lung by a removal of air, the lung rapidly expanded. When air was allowed to enter the pleura cavity freely through a large opening, an opening larger than the trachea, the lung did not expand even in convulsive coughing. When the hole in the thoracic wall was made smaller than the trachea, an effort of coughing would expand the lung, provided the air was allowed to escape through the thoracic opening; but if the window was not applied the lung remained collapsed, no air being pumped from the sound lung; the expansion of the collapsed lung was not due to the forcing of the air from the sound lung into the collapsed lung by any expiratory effort, but simply to pneumatic pressure produced by emptying the pleural cavity of its air. The glass was held over the opening. The dog revived. A similar opening was made upon the opposite side. That lung was allowed to collapse. The windows were removed from both openings; both lungs collapsed, the dog became pulseless, ceased to breathe, would have died, but when the windows were again applied, and the cavities emptied of their air, the lungs expanded again. Dwyer performed experiments to prove the theory of Smith and Frentzel that the collapsed lung expanded by air being forced into it from the sound lung. In the researches of the Loomis Laboratory No. 1 his experiments are recorded. "The sound lung being distended by a full inspiration, followed by spasmodic contraction of the respiratory muscles which condenses the air, and its escape being prevented by a partial closure of the glottis, a portion of it is pumped into the collapsed lung. If these forcible expiratory movements be quickened in quick succession, the collapsed lung is not only

expanded until it fills its cavity, but a portion may be driven through the opening in the chest wall." If the opening is much smaller in the thoracic wall than the trachea, and the coughing or forcible expiratory movements be quick, and the air allowed to leave the pleural cavity, the pumping movement, with or without the closed glottis, would expand the lung. But if the opening in the chest wall is closed, whether it is small or large the lung will not expand until the air has been absorbed or expelled from the cavity. The lung immediately collapses in proportion to the size of the opening in the chest wall after the coughing ceases.

The proper classification of empyema and the establishing of a first principle to govern the treatment of all cases would be a distinct advance; before an abscess heals in any part of the body its cavity must be obliterated by the approximation of the two surfaces either by granulation and gradual contraction or by primary union. By use of antiseptic surgery, many abscess cavities are curetted thoroughly and their surfaces nicely approximated, the result being primary union and the obliteration of the abscess cavity. The abscess has not been cured by the draining and dressing, but by the cavity being put in a condition favorable for its obliteration. Nature now uninfluenced by the germs of infection or accumulating secretions, does her work faithfully and well. The first principle in the treatment of empyema is the obliteration of the abscess cavity by the approximation of the pleural surfaces. By the approximation and possible union of the pleural surfaces (a large percentage of subjects in the dissecting-room show adhesions of the pleura), remembering that every inch of lung expansion diminishes in that proportion the pus secreting surface. Empty the cavity of its contents at once to prevent the permanent collapse of the lung, and establish a perfect and adequate drainage. Thoroughly wash and disinfect it when the contents of the cavity are fœtid and the temperature remains high; empty the cavity of its air by constant aspiration with a valvular draining tube, or by any other means possible, only empty it. Abscesses in the soft parts collapse after emptying them, and thereby the surfaces are approximated. One of the boundaries of an empyema is a rigid chest wall, and the approx-

imation of the pleural surfaces must take place by the soft parts advancing toward the chest wall by the expansion of the lung, but this process cannot take place if the cavity is filled with pus, serum or air; consequently, the abscess must be emptied not only of its fluid contents, but of the air also, as it prevents the expansion of the lung. The fluid can not all be withdrawn if the lung is incapable of expansion; air must be admitted as fluid discharges. But enough air should be withdrawn by constant aspiration to keep up, not an intermittent, but a constant pulling on the lung by the vacuum produced. When the lung ceases to expand and the condition of the patient will warrant it, the ribs may be resected and the chest wall pressed inward to obliterate the cavity. If the empyema is recent, the pleura is probably in a healthy condition, except where inflamed. If the abscess is small, and the condition of the patient indicates the subsidence of the acute inflammation, also in children, repeated aspirations might be resorted to as often as any accumulation of pus may take place. This will obliterate the cavity, and if adhesions form between the pleural surfaces a cure is effected. This manner of aspiration might be termed drainage by aspiration, and is the only manner in which it should be employed in empyema. If the pus is fœtid, at subsequent aspirations the cavity may be washed out with Condy's fluid.

Various devices have been perfected to help surgeons in their work on the thoracic wall; one of the latest is Sauerbruch's air chamber to avoid pneumothorax in intrathoracic operations.

In the pneumatic operating chamber invented by Sauerbruch, this operator has made a study of the inconveniences and dangers which attend artificial respiration, making it necessary to combat operative pneumothorax, he proposes a method, applicable to human beings, resting on the principle of the constant maintenance of the difference of physiological pressure between that which is exerted within the bronchial tubes and that which is exerted within the pleural cavity. He makes use of a chamber in which the physiological lowering of the intrapleural pressure is obtained by aspiration of the air. In experimenting upon animals the head of the animal remains outside the chamber and is separated from the latter by a rubber ball; and within this cham-

ber extensive resections of the thorax can be made without causing serious trouble in the circulation or the respiration, for the operator and his assistants can stand the conditions within the chamber. He constructed a large and a small chamber, the former differing from the latter in that on the wall, opposite the side on which is the patient's head, is fitted a cylinder in which the abdomen and the lower limbs are introduced. This cylinder is hermetically closed at the level of the lower opening of the thorax communicating with the external air; in this way the normal pressure is maintained in the pulmonary veins, while the pleural aspiration is diminished. In a second method it was sought to obtain the difference in pressure, not by exerting less pressure upon the lungs, but by increasing the pressure within the lungs. This method resulted in producing trouble in the circulation and in the respiration which were not present in the first method; Sauberbruch observed that the hyperæmia which accompanies the collapse of the lung plays an important part in the pathology of pneumothorax. In his chamber are a large electric lamp, telephone and all the paraphernalia of an operating-room; the glass walls can be washed and disinfected while spectators outside can watch the proceedings. The door is double, with an air space between. A dog was operated on under chloroform, the thorax opened and the lung seen to be on a level with the long incision made in the sixth left interspace, respiration remaining even and tranquil. The upper third of the stomach was drawn up into the wound and the œsophagus severed, the cardial stump closed with purse string suture and the upper stump implanted in the stomach wall to the right of the cardia. During the entire operation the lung retained its normal aspect, size and relations. It was pushed out of the way under a compress like the intestine during a laparotomy. Toward the close of the operation one of the aids left the room and neglected to see that the inner door was closed aid tight before he opened the outer door. The air rushed in, the lung collapsed and the respiration became rapid and jerky, but it lasted but an instant, as the door was shut at once and the pneumatic pump worked a little faster to restore pre-existing conditions. Gradually the lung filled out and expanded again. As the pressure was increased to a trifle over the standard 10 mm. the lung bal-

looned out, protruding from the incision. The pump was regulated, the lung resumed its normal place and the operation was concluded. It had lasted an hour. There were six persons inside the air chamber during the entire proceeding; while it was warm they were able to breathe, feeling the pressure only when the door was opened and then only in the ears. The pressure of 10 mm. is equivalent to an altitude of 900 feet, and the pressure in the room was very slowly increased to this point, and as slowly restored to the ordinary pressure. The point that most impressed him in the whole experience was not the absence of pneumothorax so much as the permanence of the calm, regular, normal respiration of the animal, notwithstanding the extensive breach in his thorax. Under these conditions open both pleuræ and resect the sternum and ribs almost to the spine; in short, remove almost the whole of the "thoracic cage," without interfering with the calm regularity of the respiration. The clinical experience to date with the pneumatic chamber has been 10 operations on human subjects, with four recoveries. The subjects were all in desperate condition, enfeebled by the pathologie processes, which included gangrene of the lungs, stab wound of the heart and cancer of the œsophagus. The phenomena observed in animals were reproduced in the human subjects under deep narcosis.

Incision and drainage for the relief of simple serous effusion is a procedure so disproportionate to the gravity of the affection that its adoption is not usual; but exceptional instances occur in which the usual methods are ineffectual and some form of drastic treatment is needed. Suppuration within the pleura and a chronic thoracic fistula are likely consequences which most of us would be slow to invite. Before resorting to incision, in every case give a trial to the "artificial pneumothorax" method, which can be readily carried out as a simple modification of the ordinary paracentesis, the fluid being allowed to escape by siphonage, while sterilized air or nitrogen is admitted to replace it and the puncture carefully closed. It is not unlikely that in most calses sufficient stimulation would be set up in the pleural membrane to reverse the direction of its currents, and that the lung would re-expand as the gas became absorbed.

Etiology and pathology of empyema is readily being investigated, but

it has not received any addition of first-rate importance, although Cestan's exhaustive work is a valuable contribution to the literature of empyema, both acute and chronic, in which bacteriological questions are duly considered, but chief stress is laid upon the subject of treatment and of operation. Senn's experience in Camp Thomas forms the basis of a general view of the practical aspects of the pathology and of the treatment of empyema. Fraenkel's pneumococcus and Friendlander's diplobacillus possess feeble intrinsic pyogenic property, and suppurative pleuritis set up during a pneumonia usually results from a secondary or mixed infection with pus microbes. Often it occurs at the time of the crisis or a few days later. Thus while the lung may get well the pleura may become infected, as though more susceptible than the pulmonary tissues to pyogenic infection. Senn attributes an etiological share in the production of pneumonia and pleurisy to dust, which renders the epithelial layer of the bronchi more permeable to the entrance of microbes. Senn favors a preliminary aspiration, a free incision, to be made under an anæsthetic, a slow evacuation of the chest, and tubular drainage without irrigation at first; he often resorts to free irrigation of the pleura during the subsequent treatment, and uses the double drain (the patient being made to lie on the sound side), the fluid escaping through the second tube as soon as the cavity is full. Resection of ribs as a primary procedure is losing some of its popularity; thus various observers, such as West, believe that it is often superfluous.

Andrews, in a paper on "Rib Resection in Empyema," insists that resection is too often performed and but rarely needed; he favors irrigation, and in its performance he has found Hancock's double empyema tube excellent. His own single flanged tube can be made to close the pleura air tight, and if the plug is introduced into it, after several expiratory efforts at the end of forced inspiration, the surface of the lung is kept under suctional influence for hours. Irrigation is another subject upon which opinions are still divided; there is no question that cases do exceedingly well without it, and in view of the serious complications with which it is sometimes attended, its use might wisely be restricted to cases with special indications. In a case of Janeway a

man operated upon for sacculated empyema three months previously, lost consciousness, after introducing a wineglassful of the peroxide of hydrogen injection for a second and became a pale greenish color; on recovery his right leg remained numb and powerless for twenty-five minutes. Three days later a similar attack occurred, in which he lost power in the neck, the head dropped, and there was serious embarrassment of breathing. Janeway favors the embolic theory and that the emboli are air or gas.

Valvular drainage tubes devised from time to time for empyema have not found favor with surgeons, who generally regard a free discharging outlet, kept aseptic, as the great indication. The analogous varieties suggested by Hutton and Baylor are excellent; in Baylor's apparatus a branch tube, kept habitually ligatured, enables the external portion of the tube and its terminal valve to be frequently flushed with hot boric acid solution. Baylor claims for his method an efficient drainage, a complete exclusion of air, and an inspiratory negative pressure not otherwise to be secured. Van Santvoord has devised an improvement upon Hutton's apparatus for empyema which has given good results in his hands. In one case the discharge ceased and the lung was fully expanded four days after the operation. Where empyema exists on both sides of the chest the question arises as to whether they should both be operated upon one sitting or at an interval of time. This point is discussed by Randall, who in one of his cases opened both empyemata at the same operation.

As to pneumothorax due to bacterium coli, the case reported by May and Gehart was that of a laborer, aged 43 years, who had suffered from pleurisy and pericarditis after being stabbed. Pneumothorax developed and was aspirated. The gas withdrawn burned with a good flame, and was found to contain hydrogen, nitrogen and carbon dioxide. The production of gas was traced to the bacterium coli. Pyopneumothorax, Kienbock's X-ray observations on pyopneumothorax are interesting, in connection with the pulsations which were visible to the fluorescent screen. Some of the oscilliations were synchronous with the heart beat, others were due to the shaking of the floor. The operative treatment of pneumothorax is seriously discussed by West in connection with a case

of pyopneumothorax of several months' duration cured by free incision. When pus has collected in the pleura its removal is indicated. But the risk of inducing suppuration by incision and drainage, in a pleura which previously contained serous fluid only, is hardly justifiable before we have used the less severe method by simple evacuation of the fluid and its replacement by aseptic air or nitrogen.

In the use of the Rœntgen rays in the diagnosis of affections of the pleura, Bouchard and Claude found that the shadows of thickened pleural membranes are less dark than those due to fluid, but they are permanent; there may, however, be no means of distinguishing them from the opacity produced by pneumonic consolidations. The dense shadow of a fluid effusion, occupying the base, veils the diaphragm and merges into the darkness of the abdominal area. Its upper boundary is curved, or slants from the auxiliary line to the spine. From day to day the shadow of the common basic effusion or of the more central shadow of an encysted interlobar effusion varies considerably. In pneumothorax an abnormal transparency of the greater part of the air containing pleura, in which the collapsed lung alone casts a shadow, and a depression of the curve of the diaphragm. When a serous or purulent effusion accompanies the pneumothorax the opacity due to the fluid changes its position with each change in posture, always occupying the lower section.

The varying conditions associated with the pressure or the absence of an external wound or of an opening, which may be valvular or non-valvular, at the surface of the lung, are analyzed, and West points out that in pneumothorax the pressure conditions during inspiration and expiration require to be considered separately. (a) The Inspiratory pressure. This tends to be reduced, since the affected pleura is in the equal to that of the atmosphere on deep inspiration, and it tends to remain about equal with it. If it becomes permanently raised above that of the atmosphere the presence of fluid is indicated. (b) The Expiratory Pressure of pneumothorax is always positive in the early stages. The collapse of the lung is in great part due to the compression which this exercises, and the displacement of the mediastinum is also assisted, though not produced, in this way. (c) The Respiratory Os-

cillation is the difference between the inspiratory and the expiratory pressure. This tends to be rudced, since the affected pleura is in the position of maximum inspiratory distension, while, on the other side, for various reasons, including the reduced elasticity of the sound lung, the respiratory oscillation is practically absent; this high tension is tion, as a whole, may be considerably bclow the normal. From a careful analysis of his observations, West is led to the conclusion that the intrapleural pressure in serous effusions are not so simple as they are thought to be, and that the whole subject requires a great deal of investigation. The respiratory oscillation is generally reduced in serous effusions and may be completely absent. The action of the lymphatic pump must greatly suffer in consequence. The intrapleural pressure in empyema is always positive and sometimes considerably raised, while the respiratory oscillaiton is practically absent; tihs high tension is an an important fact. It points to the formation of abscesses as a vital process independent of the simple laws of gravitation and of pressures which apply to the simple exudations.

THE NEW REGULATIONS FOR THE INSPECTION OF MEAT FOODS.

The new regulations regarding the inspection of meat products for interstate and foreign trade were published on July 27th by Secretary Wilson, and cover the entire inspection of every process with the exception of the microscopical examination of pork for export which will be published later. Interstate transportation also is not dealt with in this. The regulations call for proper lighting and ventilation of all premises. The buildings must be whitewashed or painted or other adequate measures for sanitary cleanliness must be taken. Old equipments that cannot be rendered thoroughly sanitary must be removed. Thorough daily cleansing of all trucks, trays, chutes, etc., is called for; the outer clothing of the employees is required to be of such a character that it can be easily cleaned; separation of toilet places from the places where animals are dressed is insisted on; the exclusion

of employees with tuberculosis is ordered; daily disinfection of hands and implements by butchers is required.

Weekly reports are to be made by the employees in the various departments to the station inspector, who will himself report weekly to the Bureau of Animal Industry.

With regard to the use of dyes, chemicals, and preservatives, no meat food product intended for interstate commerce is permitted to contain any substance that may lessen its wholesomeness or any preservative other than common salt, sugar, wood smoke, vinegar, pure spices, and pending further inquiry, saltpetre. Foods intended for foreign export may contain such preservatives in such quantities as are allowed by the regulations of the countries for which they are intended.

The inspection before slaughtering has been changed so that all animals suspected to be diseased shall be slaughtered under the supervision of a federal inspector and in a place apart from the general slaughtering house. After slaughtering any carcasses or any parts of carcasses which on inspection appear to be unclean or unfit for food are to be destroyed under special provisions. Such food will be tanked in the presence of the government inspector and sealed with his official seal, sufficient coloring matter being previously added thereto prevent its subsequent use for lard or other similar purposes. Steam will then be turned on.

Provisions prohibiting false or deceptive names to foods intended for interstate or foreign commerce and strict regulations with regard to stamps, labels and certificates are promulgated. A special regulation makes an attempt to bribe an inspector felony, and the reception of any consideration by any inspector or department employee is also declared felony. The following definition is published:

"U. S. Inspected and passed." This phrase shall mean that the carcasses, parts of carcasses, meats and meat food products so marked are sound, healthful, wholesome, and contain no dyes, preservatives, chemicals or ingredients which render meats or meat food products unsound, unhealthful, unwholesome, unclean, or unfit for human food. —St. Louis Medical Review.

Editorial.

COLLABORATORS:

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J. T. Searcy, M. D., Tuscaloosa
L. C, Morris, M. D., Birmingham.
J. A. Goggans, M. D., Alexander City.
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B. L. Wyman, M. D., Birmingham
Thomas D. Parke, M. D., Birmingham, Ala.
W. H. Wilder, M. D., Birmingham,
D. F. Talley, M. D., Birmingham.

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The "organized" profession undoubtedly possesses powers and duties which are beyond the scope of the individual; but it must also be remembered that in these days of public unrest, there is a certain amount of suspicion entertained regarding the spirit which prompts all "organized" sentiment; hence the influence of the individual is not to be underrated; rather it is to be considered more effective, possibly, than ever before. With this before you for consideration, we would earnestly plead for your individual recognition of a duty most clearly before you, just at this time;—not "later," and not "for somebody

else." It concerns the Public Health, as entrusted to us; it is in our hands, through the medium of the law, which governs or misgoverns the people as to the protection of their health. Attempts have in the past been made to so alter these laws that the people might suffer through sheer ignorance of their own minds, coupled with the same, or possibly with criminal ignorance on the part of those to whom they might be so delivered medically. Of these attempts, it is needless to speak here, beyond adducing them as evidence that other attempts may be made, we know not how soon. Of the attitude of the profession, it is still more useless to speak; we know that we have been persistently misunderstood, and our motives vilified, and that the same will occur again; we may expect that, and higher considerations compel us to endure it.

But our duty is to undertake a "campaign of education," and to concentrate our efforts upon those to whom the "will of the people" has delegated power over laws-that-are, and laws-that-may-be. We can all take part in this; we can exert an influence almost beyond reckoning, and in a manner open to all upon whom responsibilities rest through special capacity. It would certainly be best if this measure of "education" would suffice; it might be perfectly worthy of the cause, however, if we should bear in mind more than we have done, our power of "retribution." This, in our sincerity and guilelessness, let us call it, we have certainly forgotten; the enemies of the public good in the past have possibly been assisted into a continuance of power through our own hands, and are now "foot-loose" unless we use more influence for the right.

We cannot escape blame, then, if we allow the law-making creatures of our votes to decide upon matters that may arise concerning Public Health, without full knowledge of the dangers into which they may plunge the laity, under the specious guise of "equal liberty for all," etc. It has been our privilege to know, it is our duty to teach.

On the 4th day of October, the Tri-State Medical Society of Alabama, Georgia and Tennessee, in session at Chattanooga, ceased existence as such, and gave rise to the Southern Medical Association.

This transformation was variously described by different advocates of the change; one likening it to the burying of seed that a larger harvest of good might result; another to the "marrying off" of a charming creature of 18 years, in order, presumably, that the benefits to be begotten thereby might be the more legally presented under the newly adopted name of the mother-society; while still another "expansionist" recalled the ascension of the prophet Elijah, whose departure from this life for a higher field of activity was unaccompanied by death.

Such a richness of figures might well assure us that a progressive step has been taken, promising much for the future of medical association life in this, our section of the South. The new Association contemplate embracing at least six of the "southeastern" states, and is in accord with a general scheme on foot to have similar associations over the country formed of groups of states, and filling a gap as it were between the individual State Association and the all-embracing American Medical Association. It was emphasized that no encroachment would be made upon the field of any existing body, nor would any usurpation of existing rights and functions be attempted. If such be the case, surely such a movement deserves the hearty support of the organized profession toward any further advancement of medical organization.

During the past two months the weather has presented us with first an excessive rainfall, and following that an early and sharp "cold snap," so that we can now safely indulge in such congratulations on our freedom from Yellow Fever, as are by custom withheld until after frost.

This year, happily, all of our Southern States can join us in the thankfulness which comes from the epidemic's absence. It might be claimed that our good luck was luck, pure and simple, and that we are not called upon to ascribe any virtues to an increased efficiency in our sanitary safeguards; but logic and probabilities would seem to put us in debt to the precautions which we have so largely adopted; it is certainly a safer course to impress the public at large with their healthful-

ness as coming from an intelligent obedience to science, than to allow them credit to blind luck.

Our single case of fever at New Iberia, La., did seem to be a stumbling block over which some of our theories as to the manner of spread might suffer a fall or set back; it is even probable that some stegomyia agnostics may have chucked a little in their sleeves; but whether or not its mode of origin was ever settled satisfactorily through the expert investigation, there are too many small loop-holes through which the true clue might have escaped; and the evidence is far too slender to convict a theory born of such careful proof, of any real unsoundness.

VERY ILL.

Name, oh doctor, name your fee,
Ask—I'll pay whatever it be—
Skill like yours, I know comes high,
Only do not let me die.
Get me out of this and I
Cash will ante instantly.

CONVALESCENT.

Cut, oh doctor, cut that fee,
Cut, or not a cent from me.
I am not a millionaire,
But I'll do whatever's square.
Only make a bill that's fair.

WELL.

Book, oh doctor, book your fee.
Charge, I'll pay it futurely
Whenever the crops all by are laid,
Whenever every other bill is paid,
Or when of death again afraid,
I will pay it—probably.

Miscellaneous Notes.

Dr. William M. Mastin, of Mobille, who has been absent in Europe during the past four months, has returned. During his trip abroad, Dr. Mastin visited all the large hospitals on the continent and in Great Britain.

GENERAL.

Dr. J. H. Carstens is a candidate for the mayoralty of Detroit.

Pittsburg is suffering an unusual epidemic of typhoid fever. Epidemics of typhoid are usual at Pittsburg, but the present epidemic is of extraordinary dimensions.

The State Board of Health of Kansas is engaged in a census of tuberculosis in that State. The physicians are the sources of information, which will include, besides the number of cases, the supposed cause in each case, the stage of the disease and the previous condition of health.

The first number of the West Virginia Medical Journal, published by the West Virginia Medical Association, appeared in August. The publication committee is Dr. S. L. Jepson, Dr. L. D. Wilson and Dr. John L. Dickey, and the publication office is in Wheeling. It is a bi-monthly journal, and the subscription price is $1 a year.

Dr. Philip S. Wales, Medical Director, U. S. N., retired, died in Paris on September 15, Dr. Wales was born in Annapolis in 1837 and graduated in medicine at the University of Maryland. He entered the U. S. Navy immediately after graduation, and became a surgeon in 1861. In 1896 he was retired on account of age.

The Delaware Antituberculosis Society has acquired several acres of land near Newcastle through the gift of a member of the Du Pont family, and proposes to begin at once the treatment of consumptives in tents. As soon as possible a permanent sanatorium will be constructed and a tuberculosis dispensary. Dr. John J. Black of Newcastle is the leader of the movement.

The splendid new buildings of the Harvard Medical School were dedicated on September 25th and 26th. An academic session was held at Sanders' Theater on Wednesday, the 26th, when addresses were made by the president of the University and Dr. Wm. H. Welch of Baltimore, after which honorary degrees were conferred. In the evening the triennial dinner of the Harvard Medical Alumni was held in Memorial Hall.

The druggist of St. Luke's Hospital, Chicago, received a prescription for urotropin and dispensed instead atropin. The results were fatal and the druggist was discharged. The coroner's jury recommended that the druggist's license should be revoked. One wonders whether someone besides the druggist should not have been also severely disciplined on account of this blunder. The illegible handwriting of many physicians might be improved by appropriate punishments.

Two large and costly tuberculosis sanatoria, one in Belgium and the other in France, are said to be practically empty all the time. The reason is believed to be that the consumptive wage-earner will not relinquish his occupation so long as he can work, and by the time his working capacity is lost he is too far gone to derive benefit from treatment. The opposite condition of affairs in Germany is attributed to the compulsory insurance laws and to the alertness of the companies in detecting early tuberculosis and removing the sufferer at once to a sanatorium, supporting his family during his absence.

IS THIS RIGHT

When you buy from the grocer, do you tell him how much you are going to pay for sugar, or flour, or bacon? Do you generally allow your patients to say just how they are going to pay? Are lawyers in the habit of allowing their clients to fix their own charges? Put this way, all these things seem absurd, yet that is exactly what has been done in our case. The old line insurance companies, with a brazen impudence that is almost hypnotic, have said to us, as to slaves, "We will pay you $3 for our examination—be thankful to get that much. Our high officials have stolen so much money that we must economize, and we believe that you doctors will take what we offer and say 'thank you.'" Are you going to allow the patient to fix the fee? Why not make in-

surance examinations for nothing? Why not do all your work for nothing? Why not live on sawdust—or starve?—Editorial from Cal. State Jour. of Med.

One of the most valuable remedies for hemoptysis is inhalation of amyl nitrite in 5 minim doses. Hare, in 1904, first drew attention to the valuable properties of this drug in this affection. The theoretical explanation of its action lies in the fact that amyl nitrite being such an energetic peripheral vasodilator, probably acts as a vasoconstrictor in the lung and internal organs.

In applying a leech wash it with clean water to remove as far as possible any extraneous matter. Place it in a small vial with a large neck. Prick the skin so that a small drop of blood exudes, or place a small drop of milk upon the spot where it is intended that the leech shall fasten. Invert the vial over the spot, and the leech will quickly take hold, when the vial can be removed.

THE NORTH POLE LOCATED (?)

According to a report in the St. Louis Globe-Democrat, Captain Renald Amundsen, the discoverer of the northwest passage, has probably located the north pole, on Bothia Island.

RAID ON CANDY DEALERS.

Dr. Warren, of Philadelphia has made a successful crusade against the retail candy dealers of that city. The result was the arrest of 19 men and each fined $57.50, which was paid by the New York Glucose Company.

PUTTING HIM STRAIGHT.

Doctor: "I should strongly advise you, my dear sir, to go South for the winter."

Patient: "I may as well tell you, doctor, that I am neither a millionaire nor a bird."

AN ADDITIONAL AND UNCONSIDERED DANGER OF SELF-HYPODERMICATION.

An old wartime merchant of St. Louis, seventy years of age, died recently at St. Vincent's hospital, Cape Girardeau, Mo., whither he was taken suffering with tetanus, supposed to have resulted from the habitual use of a filthy hypodermic needle.

NEW TREATMENT FOR LUMBAGO.

G. H. Kenyon, in Merck's Archives, suggests a new treatment for lumbago, with which he has had unprecedented success, never having had a failure in bringing sure and speedy relief. He rubs the B. P. unguentum antimoni tartrati thoroly into the affected parts, twice daily, until the postules common to the local application of antimony appear. Usually, by this time, the pain is gone, and the patient is practically well. He uses internally a saline cathartic, with which it is well to combine some sodium salicylate. If the rubbing is done with sufficient energy, only a few applications are required; sometimes not more than two. It is necessary to stop the application as soon as the pustules appear, as ulceration of the skin would probably follow prolonged application.

THE TELEPHONE AND THE DOCTOR'S FEE.

As the telephone comes more and more into general use, physicians are beginning to find that it is not altogether without its disadvantages. It has become a necessity for the doctor to have a telephone in his office and his home, often two, and the willingness of patients to take advantage of it and incidentally of the physician, has led to not a few disagreements between doctor and client. Patients find it very convenient to obtain medical advice by its aid without having to pay the usual fee. Many, if not most, physicians in this country charge for this service their ordinary office fee, but in Europe great difficulty has been encountered in this respect, and lately a suit was brought to establish the legality of charging under these circumstances. The judge decided that medical advice must be paid for, whether givin in the

consulting room, by letter, telephone, or at the bedside, the learned judge stating that the special knowledge of the practitioner, acquired only after long years of study, could never be the subject of "sweating." On a demurrer that the attendant could not decide on the proper treatment of a given case unless in actual attendance upon the patient, the judge ruled otherwise—that it was the practitioner's duty to decide whether the case was such that he might safely give instruction by telephone, having seen the patient on a previous occasion. Medical councils in Vienna have taken the matter up and will in the future require their members to charge for such consultations, as is only right and proper.—Lancet-Clinic.

A POULTICE.

But few know how to properly prepare and apply a poultice. The doctor is often ask to verbally explain the method of making and applying a poultice. Some doctors do not know how to make and apply a poultice.

Poultices must be made hot. They must be applied as hot as can be borne.

They must be changed frequently.

They must be changed quickly. The new poultice should be ready to apply just as soon as the old one is removed.

Several folds of flannel or oiled silk covering a poultice will keep it warm longer.

A poultice must be held in position by bandages; it must not be allowed to slip from the part.

Linseed or Flaxseed Poultice.

Pour boiling water over sufficient linseed in a small kettle or stew pan, stirring rapidly, to keep from lumping and sticking. Spread the poultice immediately, about 1-2 inch thick, on a square piece of clean linen or muslin, that has been warmed. The piece of linen should be large enuf to fold over the linseed from each side.

Mustard Poultice.

1. Dip a soft piece of flannel in boiling water, wring out, lay on a

hot plate and sprinkle one side with fresh flour of mustard. Fold over the sides of the flannel and apply.

2. Spread a tablespoonful of mustard, prepared as you would for table use, on a piece of clean linen warming in the oven just before applying.

3. Make a common bread poultice, and stir into it, while warm, one tablespoonful of mustard.

A strong mustard poultice is made with mustard and warm vinegar; one not so strong with equal parts of mustard and linseed meal mixt with warm water.—Western Druggist.

PURE FOOD BILL WANTED.

Now that Congress has at last passed a pure food law, it is in order and necessary, to make it effective, that every State should enact a similar law. We have on our statute books an excellent law, passed in 1885, but as no appropriation was ever made to carry it into effect, it has ever been, and is now, a dead letter. Now that our border and coast quarantine will soon be turned over to the United States government and all border and Gulf inspectors by the State will be discontinued, not less than half of the yearly appropriation for the Quarantine Department will be saved; and the State can well afford and may be induced to expend the necessary amount to vivify this bill, as well as to make operative the vital statistics law.

OFFICE HOURS.

When all is done and said, we must admit that the average medical man is but a slave of the public, and more sadly spoken, he is a slave because he wills it so. The sorry independence which he claims is but a mockery—a phantom of real life. In many sections the physician adheres strictly to office hours and visits, and again certain periods of each day are devoted *to living*. The mental and physical vigor that is inherent in hours of recreation, of exercise and of study, are the corner stones of the greatest achievements. The commercial spirit with the almighty dollar in the ever vanishing perspective dominates with an iron hand. The humanitarian element is in most instances heroically

and generously present, but the placing of medicine on the low plane of "live in your office from early morn till late at night, that none may escape," removes the high calling of medical practice from its place of reverence and respect to a position of contempt and disgust.

We lengthen our hours of practice, increase the strain to secure it, and correspondingly lower fees and cut the surgical rate card until it becomes almost appalling that efficient service can be had almost for a *pour boire.*

The proposition cannot be gainsaid, that if physicians would consistently keep regular and punctual hours, of moderate length, at such times as the exigencies of individual practice demands—the same amount and better work would be accomplished, the same or a better livelihood made; there would be more hours for relaxation and physical re-enforcement,—and who needs more vigor, both mental and bodily, than the busy practitioner, and there would remain more hours for study and investigation. It is the hurly-burly of lax office hours that enforces the superficiality and consequent inefficiency of much medical work. *No how much, but how good,* should become the escutcheon of medical practice, and fees advanced accordingly. The most telling work that medical societies could do at this time instead of throwing ink at the moon and spitting at the stars, would be to regulate and moderate the daily routine of its members, teaching them economy of time, the privilege of recreation and the possibilities of more concentrated study and the satisfaction in one's work which is incompatible with the strenuous "day and night" strain which so generally prevails.

SOME USEFUL RULES FOR PREVENTING TUBERCULOSIS.

To describe the various sources of infection during school life I believe I can not do better than to repeat here the little list of rules which I like to see school teachers give to their pupils, and which might serve as an alphabet in the prevention of tuberculosis.

1. Every child and adult can be helpful in fighting consumption. School children can help by complying with the following rules:

2. Do not spit except in a spittoon or a piece of cloth or a handker-

chief used for that purpose alone. On your return home have the cloth burned by your mother or the handkerchief put in water until ready for the wash.

3. Never spit on a slate, floor, sidewalk or playground.

4. Do not put your fingers in your mouth.

5. Do not pick your nose or wipe it on your hand or sleeve.

6. Do not wet your finger in your mouth when turning the leaves of books.

7. Do not put pencils in your mouth or wet them with your lips.

8. Do not hold money in your mouth.

9. Do not put pins in your mouth.

10. Do not put anything in your mouth except food and drink.

11. Do not swap apple-cores, candy, chewing gum, half-eaten food, whistles, bean blowers or anything that is put in the mouth.

12. Peel or wash your fruit before eating it.

13. Never cough or sneeze in a person's face. Turn your face to one side or hold a handkerchief before your mouth.

14. Keep your face and hands and finger-nails clean; wash your hands with soap and water before each meal.

15. Do not kiss any one on the mouth or allow anybody to do so to you.

16. When you don't feel well, have cut yourself or have been hurt by others, do not be afraid to report to the teacher.

17. Be just as careful and cleanly about your person at home as in school.

18. Clean your teeth with toothbrush and water, if possible, after each meal, but at least on getting up in the morning and on going to bed at night.

19. Learn to love fresh air and learn to breathe deeply and do it often.—Knof, J. A. M. A.

BOOK-REVIEW—"*How to Suppress a Malpractice Suit,*" by Dr. T. H. Shastid. The author quickly gives us the formula in his first lines; "First catch the other doctor and suppress *him.*" He then elaborates on the methods by which this may be done. The little volume contains several other chapters, which the writer designates as "miscellanies;" but all are written in a breezy, interesting style, and fall within the border-line of medical reading. Published by the Marion Publishing Co., Marion, Ill., price $1.50.

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"UNCLE JOSH" ON MODERN SURGERY.

By W. V. Williams, M. D.
Frankfort, Ky.

Ef thar's any branch o' larnin' that's a-humpin' right erlong,
That's a-gettin' up an' dustin' an' a-leadin' o' the throng,
It is this here cuttin' business, this here carve "ad libitum"
That the doctors put in practice when you send for one to come.
They don't ask you, like they used to, fer to poke your tongue way out,
An' some other leadin' questions 'bout the ailment, like they mout;
They ain't bothered 'bout yer kidneys, or your liver, or your lights—
They are banned by Dr. Cutter fer encroachin' on his rights.
They jist hustle to your bedside, an' examinate yer heart,
Then a shiny little squirt-gun in yer biceps takes a dart,
Or yer swollow down a tablet, 'bout the homepathic size.
An' they tell yer to be quiet an' to sort o' shet your eyes,
Then yer whiff a sort o' sweetish fume a-floatin' round about—
Kind o' slickly like a sort o' sweetish fume a-floatin' round about—

Yes, of course yer fight again it, but it matters not to them,
They's done got yer good an' started ter the New Jerusalem.
You have clumb the Golden Stairway, an are on the battlements,
Jist a-squealin' an' a-shoutin', like a pig caught in the fence,
An' yer hear all kinds o' music, an' yer see all sorts o' sights—
Oh, yer sure will have a pipedream that's a peach-'marine in tights!
But yer soon stop this cavortin', for the play gets busted up,
An' yer come back wantin' water—jist a brimmin' gallon cup.
You may think your thirst important, but the question "a propos"
Is ter take an inventory o' your frame-work, high an' low.
Better feel about yer pusson fer ter see what's cut away,
But about yer missin' innards yer kind never tell they say.
They kin swipe yer spleen completely, an' er vermiform to-do,
An' a hunk o' big balony, an' a Frankferter or two,
An' you'll never miss the chittlin's, fer they always leave yer some,
'Cept you feel a little lighter when you walk about the room.
Thar's a lot o' fixin's in yer that's no good at all, they claim—
All of sich belong ter Cutter, fer his "take out" in the game.
Yes, the doctors all are dopy on the problems o' this creed,
An' are actin' like a ducklin' filled clean up with pumpkin seed.
Why they write an' talk about it, an' they dream o' it in bed
'Till the timidest among 'em is beginnin' to "see red."
They have emptied out the blue-mass an' Peruvian bark, an' sich,
From the satchel that they toted when I had stone-bruise an' itch;
An' they have filled it up with cotton an' a lot o' skeeter-bar,
An' some fiddle string an' resin, all a-smellin' like coal tar.
Yes, an' knives from "a ter izzard," every kind you ever seen,
Jist as sharp as cambric needles, an' as shiny, bright an' clean.
An' thar's pincers, scissors, bodkins, tuckers, hemmers—it's a sin
Ferter to grab a wife's work-basket, an' jist dump the hull thing in,
Looks as tho he sure had done it, an' stopped by the barber-shop,
An' the jeweller's an' plumber's, fer ter see what he could cop.
He has got more tools and jiggers than a wood-engraver, far,
An' a carpenter an' blacksmith, an' an automobile car,
He could lend ter Santos-Dumont half his kit an' then do well
In the work of excavatin' on the Panama canal.
Ef fer every three steam-shovels that they ship away out thar,
They would send one Doctor Cutter, things would not be where they are
For the ditch would bin completed, an' the glorious stripes an' stars
Would a-bin a-floatin' over work as fine as that on Mars.
Yes, they've throwed away their pellets, as I was a-tellin' you,
Fer a bunch o' stickin-plaster, an' a can o' two o' glue;
Fer you don't have no more ailments like they used ter talk about,

Whar they sent a pill a-sarchin' fer the germ, an' brung it out;
Thar's no more June-apple two step—"Pendicitis" is its name—
When yer stomick's full o' pop-corn Cut-aritis is the game.
"Cut it off," or "cut it open"—is the sort o' tune they sing,
Ef it's rheumatiz or measles, or a flea bite in the spring,
Or a County Court day headache, they must open up an' see
Ef the lid is restin' proper on yer Sarah Bellum tea.
Ef yer mash yer thumb a-tryin' ferter drive a stumpy nail
In a shaky piece o' fencing', an' it makes yer sick an' pale,
Why the doc—if one is sent fer—will look mighty grave, an' say:
"You are in fer 'Amputitis'—better fix yer right away."
An' they pay no sort of' 'tention ter the weather or the moon—
They will carve yer in December, in the Dog Days, or in June.
An' they never stop ter figger, when they see a piece o' meat,
Ef the sign is in the stummick, in the head, or in the feet.
I am up on operatin' in a simple sort o' way,
Fer I've had ter do it frequent on the farm fer many a day—
Sich as 'tendin' to the cattle when they swell up as they do
From a-eatin' too much clover, in the early mornin' dew,
An' a-cuttin off the rooters o' the shoats ter save the grass,
An' some other complications, that, fer want o' time, I'll pass,
But my moves were zodiacel, Lunaistic, fer a fac'.
Fer I followed o' the figgers in the family Almanac.
It's the safest plan, I'm thinkin' fer the general health o' all
Not ter go agin nater—somethin' awful mout befall.
As I said they've passed up physic fer the knife and scissors plan,
An' have put the ginseng diggers "hoss der combat" to a man.
An' they always put a figger on the job that kind o' smotes—
Enny whar from three to thirty o' them yallow lookin' notes.
Thar's this blasted 'pendicitis, which has got ter be a curse,
Fer hit hurts yer stummick orful, but hit hurts yer pocket worse;
An' a lot o' other ailments that I can't jist now recall
That'll make the fattest wallet no more good to you at all.
Some o' 'em will do it cheaper, ef they've got the habit bad—
Knowed 'em work fer hide an' tallow, but the endin' here is sad,
An' I would'nt put no damper on the spirits o' the day,
Tho the dead be here forgotten, an' the livin' go astray.
Now I'm far from pessimistic an' I wouldn't start no row,
But I'll state here in concludin' as a man behind the plow,
That thar's most too much o' "Cutter," an' not half enough o' "Squills,"
Fer to perkolate promiscous round with stummickache an' chills.
Course they tell you it won't hurt you, fer they feel like Pat. O'Rive,